

QL S.U.B.

THE MONTHLY PUBLICATION OF QL SUPER USER BUREAU

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More Developments from S.U.B.

We have made a few changes in the operation of Super User Bureau over the last few weeks, and we have been able to increase the range of items that we can offer you, the number of services, and the quality of service.

We have recently had a large number of new subscribers, and a sudden increase in the amount of help required. We can cope, it is simply that we quickly had to improve the way we handled your correspondence. Your problems will now be answered on a weekly basis, and our plans for more information sheets will make our service more efficient. Up until now, dealing with correspondence as it arrived meant that the articles and features for the magazine were delayed. This new system will solve that problem, so we stay up to date.

On the subject of the help that we can provide, we feel that some of you have become a little confused about how we operate, and have asked for the sheets of information on general programming of Archive, for example. What we meant was that if you get stuck programming Archive, then we could help out. (You may have a procedure that does not do what you want it to, have a procedure that does odd things, or you may not understand one of the commands.)

Another aspect is that we will have to make a charge if you require complete programs, or even sets of procedures writing. Programming is fun(!), but it is also very time consuming and the rate for programming is officially £25 per hour in the industry, although you do not often have to pay that much. If you require systems writing, then we can either put you in touch with those who are willing to write them for you, or quote you on your requirements.

Our plans for a QL and CP/M public domain software library for the QL have finally become reality. You may be quite surprised that there is very little public domain software around for the QL, and that is a situation that we would like to change.

Do you have a program, (or programs) that you think might interest other people, and which you are willing to allow people to pass on free of charge? Your programs do not have to be amazing, just useful, and without bugs- if you don't mind documenting them, then we will make them public domain, with your permission, and then your hard work can be shared by many people who either can't afford the commercial software, or can't find what they need. If you have a program that you think is worthy of a royalty, then contact us, and discuss it.

If you have software that you want to market, then contact us for details about our new budget software label. We can either help you by offering you ridiculously inexpensive advertising in "QL S.U.B.", or help you to market the product ourselves, by including details of the product on our adverts, and helping your product to get known. We are very competitive- talk to us!

We can also now offer a library of CP/M software, in QL format. The system will be one system per disc, or microdrive, rather than the confusing jungle of different programs all mixed up on a disc, and in obscure formats. Some of the present options include editors, wordprocessors, Pascal, BCPL, Lisp, COBOL, Z80 assembler and more...

It is important to note that these programs require a CP/M emulator to be run on the machine, either CP/Mulator from Sandy, or Success from Digital Precision. (Give us a ring for details and prices if you are interested!) The copying charge for these programs is only £1.50, which is about the lowest anywhere. If you send £3.00, then we will provide the media. A list may be included with the price list- if not please ring or write for details.

We have arranged to offer a repair service with one of the best companies dealing with the QL. We may be able to offer you a choice of services soon too, according to where you live. We can offer a years guarantee on your QL too, at the very competitive price of £30.00 for a years cover. You do not even need to send your machine off for a medical. (You could think of it as your computer's life assurance!)

The article on the ICL OPD and Merlin Tonto in this issue highlights the close family links between the two machines. We are now almost certain to be offering services for users of those machines, although as there is no national link for them, it will be hard to let them know that we are willing to help. We do not expect to be running a column in this magazine, nor publishing another, but if there is sufficient interest, we may produce a newsletter, and organise a group. If you know any OPD, or Tonto users who may be interested, then please let them know, and ask them to contact us.

This page has been one of the first to be produced in this issue, so if you want to read the very latest updates about our service, turn to the back outside cover, "STOP PRESS", which we have reserved every month for just that purpose- of course, the fastest way is to contact us by phone!

EDIT, An Extended Editorial

In response to correspondence from a number of our subscribers, I have made a last minute change to our editorial to include details about who we are, and some more details about Super User Bureau. I would include a photograph, but I think that would be carrying things too far—we don't want to scare any of you, just introduce ourselves!

My name is Richard Turner. I edit this magazine, do reviews, and deal with marketing, and technical queries. If you have a technical problem, or you need specific advice, then you are welcome to phone us up, and ask for me by name. I will be happy to help you.

My wife, Julie, deals with just about everything else. She answers the phone and deals with orders, she keeps the customer database up to date, and she makes sure that you get the products you order quickly and correctly. She also deals with trade after I have made initial agreements. She will be happy to help you with queries too.

As you will have gathered, at present we are a very small operation, but we are building up our services, and with your continued support, we will be able to offer YOU more support, and more services. We hope to be taking on a couple of extra staff over the next few months, as the workload increases, to handle administration, sales, and further technical support for members.

A number of you have also asked just where on earth Shildon is. Well, I am happy to clear that up too! We use the abbreviated post office address so that our customers have an easy to remember address, and not so we can hide behind an anonymous post office box address. The other aspect was that when we started, we knew that our address was about to change, and we wanted consistent advertising. Our full address is shown on the bottom of all our letterheads, 16, Kilburn St., Shildon, Co. Durham, DL4 2JY. (Please address your correspondence to PO BOX three, however.) Shildon is in County Durham, in north east England, not Ireland, as some of you have thought!

We will also be very pleased to make contact with anyone else trying to do something good for the QL. If anybody in the north east is interested in forming a north east QL user group, to meet with other user groups at various locations, or in Washington. Please contact us, and we will provide more details. Eventually, we are hoping to organise a northern Microfair, as many of you have commented that London is too far from Scotland and northern England to travel for a computer show.

Now onto the main matter to hand, that being what is in this issue, and what we have planned for the next. This issue has fallen far behind schedule, and we apologise to everyone, not least to our printer who has been waiting anxiously for the latest copy. Fortunately, we are much nearer our planned schedule for the next, and all the teething problems that we thought we had solved on completion of the introductory copy, seem finally to have been eliminated, and we feel confident that the next issue will be even better in a number of areas.

Our main problem now is choosing what to feature now, and what to feature later, due to the very large number of new and revised products being sent to us for review at present. We will still be glad to receive more though! (If you send review software, then it will be paid for, or returned after review—or we could also offer it as a prize to our members, of course!)

Perhaps now is a good time to remind our subscribers that your subscription is for twelve issues, rather than twelve months. The distinction is that if we have kept you waiting, then you still have the benefits of membership until you receive your twelfth copy. That means that you can ask for help, buy products at discounts, and so on. We also remind you that if you joined directly, that is rather than sending for an introductory copy first, then you received that as an extra bonus.

We think that we have a number of interesting reviews, and in most cases, we have been able to link them to a special offer on the product. That is not to say that they all get rave reviews, and we do not just say "buy them all!" However, this month's crop of new items is certainly far better than average, and good value.

Some of you had some problems with the listing in the introductory copy. We hope that this month's program is just as worth persevering with. We point out that all the programs work, as they have been imported straight from the working version of the program, saved on disc. (The screen dump also shows you what to expect when run.)

A number of people have asked us about submitting articles to the magazine. We will welcome articles, but compared to "QL World", we are obviously tiny. As the cost of publishing the magazine is paid for from subscriptions, rather than out of advertising and sales, we cannot afford to pay for articles, but if that does not discourage you, then we will be glad to consider anything.

THE NEWS DESK

There is a tremendous amount of news for this issue. The news sections, and the reviews sections are threatening to take over the magazine! We have a stack of software to review, and we are gasping at the number of products that are either new or have been released in a new form lately.

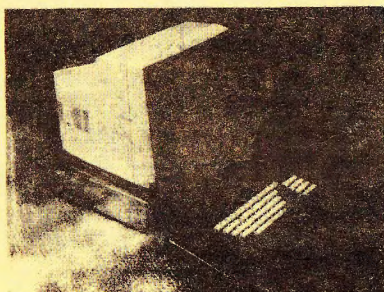
FUTURA KEYBOARD AVAILABLE

Sandy has made available the keyboard that they had custom designed for the "Futura". It is completely compatible with the existing QL keyboard, even retaining the same key layout, but has the extra advantage of ten function keys, (the five normal keys, plus the five shifted) and a numeric keypad. It has a recommended retail price of £99, but it is manufactured in Italy, and is finding various routes into the country. (Please ask us for a quote.)

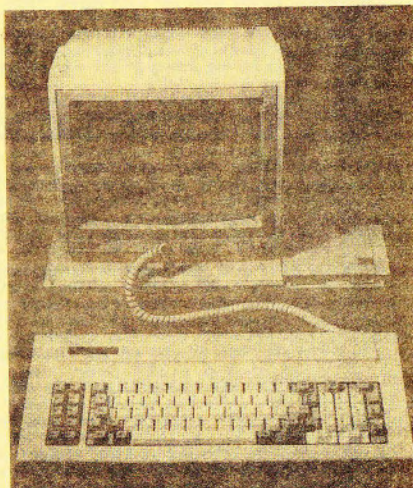
It overcomes the problems associated with other keyboards such as keybounce and poor keyrow emulation by attaching via a ribbon cable in the same way as your standard keyboard. It allows you to use all hardware and software that works ok on the standard QL system, including both your microdrives.

QL SYSTEM/2 NOW AVAILABLE

Another product that has partly come from the Futura project is the Spem system/2 mounting kit. It consists of an aluminium box in which you can mount your QL circuit board, both your microdrives, and up to 2 floppy discs and 1 hard disc. It is designed for use with the Futura keyboard, and as you cannot use your existing keyboard you will have to have an external keyboard. (You may consider the Schon.) It also includes five expansion slots, and should be compatible in theory with everything for the QL. It is said to be quite easy to fit, but if you are nervous, then contact us. It sells for £99. It will be reviewed soon.



Another new keyboard is available from Schon, who are offering an IBM style keyboard and interface for £99. It is easy to fit, and comes complete with a new top for your machine in beige. You can still use microdrives and add-ons. They also claim to have cured the key bounce problem that some people found with their standard keyboard, which is now available as a bargain at £45.



Miracle Systems have now made upgrades from the Expanderam to the Trump Card available in an easier form. Rather than sending your Expanderam back and getting "part exchange", you can now get a card to plug into the end of the Expanderam which upgrades it to the specifications of the Trump Card. That is called the Trey Card. Another version of the Trump card with only 256k is also available, called the Ace Card. These options make upgrading in stages to the full system much easier.

QEPROM ALLOWS EXTRA 192K ROM

Many of you have asked us about how to plug in extra ROMs in the QL. Several boards have been mentioned in QL World but none ever appeared. Now Spem have come to the rescue with their QEPROM board that plugs into the expansion port, and has a through connector for a RAM card or disc interface. It will take up to 3 64k chips, offering 192k of space. You can of course use the smaller chips such as the 16k ones. There is not much software available on ROM at present, but more is coming.

MIRACLE QL MIDI INTERFACE

Another interface that is finished but is still "under wraps" is the Miracle MIDI interface. It is not a device for controlling small music centres, but a "Musical Instrument Digital Interface" for the QL. This common standard for synthesisers and so on allows you to use your QL to play professional music the only problem being the unfinished software from "Escape Software" that is holding everything up at present.

SPEECH SYNTHESISER ARRIVES

A new speech synthesiser for the QL has been available for some time, and looks to be doing well. Although we are yet to get one, we have heard a number of good reports about it. It plugs into the serial two port, (so you cannot use a modem at the same time- aaargh...) and comes with text to speech software. There are two games that use it, with more promised.

Although this is not really up to date news, we thought that as the unit has gone almost unmentioned, and the news about it is confused, to say the least we would like to let everyone know that the Spem Video Digitiser is real, and does work. (It may need tweeking for your monitor, however.) We are awaiting new stocks, and we will be running a review of it just as soon as we can get a video source! If any members have had experience of it, then we will welcome their comments.

QL GUARANTEES NOW AVAILABLE

We can make some hardware news too. We have now arranged a years guarantee system for your QL(s). Any standard machine can be guaranteed unseen, but if you have any non standard fittings, then we must be told, and the machine may have to be sent for inspection. The machine will be sealed, and if you open it for any reason, your guarantee will be invalid, the usual guarantee condition in common with Sinclair's.

We cannot at present offer the scheme to users of the CST "Thor", or other upgraded systems such as the QXT-640, but we hope to be able to eventually. The cost is £30 for one year- think of it as insurance. One breakdown could cost you that much straight away, just think how much it could cost you if it broke down twice or more... We can also offer a business guarantee, or service contract including replacement machine during breakdown to business members. Enquire for details of both.

Finally, as a bridge between our news of the new hardware and software, we have some new firmware to report on. Firmware is software supplied on ROM. The Liberation Software Qliberator is

now available on a 64k EPROM, so you can have it always available without having to use up any of your RAM. It can be plugged into a unit such as the Spem REPRON board available from us.

OVER THE TOP WITH DIGITAL

Digital Precision have been going over the top with new products. They have announced a new CP/M emulator called Success, (it stands for an expression so absurd I am not going to print it,) that is said to have blistering speed. It will be interesting to see just how well it compares with the CP/Mulator from Sandy that is very popular. DP claim that as it does not need a ROM in the cartridge port like the Sandy unit, it is more convenient, but still as fast, or faster. We will see soon.

They have also brought out a new small C compiler that offers full control of QL sound and graphics, and is supposed to implement them in a similar way to SuperBASIC. It will be interesting to compare it with the GST "QC" compiler that we also stock. That has an easy to use front end available, and full control over QL sound and graphics.

They have also launched a new game for serious bridge players, "Microbridge." It is also a bridge tutor, and leads the user through 16 levels, with helpful commentary as you play, and refers to the manual supplied with it.

Their last product is a print utility called Ultraprint that they say does wonders on OKI or Epson printers. You are given various options for sizes and number of passes, and there is a special screen dump for use with Eye-Q to enable you to produce perfect PCBs.

Palantir products, Utilising Software, and Rob-Roy Software have formed a new trading alliance called Avon Computer Enterprises (ACE), and they each have new products, some of which they have been kind enough to supply for review.

The new software from Palantir is an update of an existing product, with many new features. Called "Inkwell Deluxe", it allows you to produce high quality output similar to that from a desktop publisher from a dot matrix printer (even a Serial 8056) from text files written on Quill or an Editor. Julie has already used it to produce a neat private letterhead for notepaper.

Utilising Software have a new product to enable you to make you programs error trapped under the interpreter. They have implemented a number of new keywords to trap all errors, including BREAK. No more embarrassing errors...

Rob-Roy Software also has the latest version of its front end, "Cue Well" that allows you to control your system with easy to understand key presses.

DEVELOPMENT HIT

The future of the QL market looks to be getting a significant boost from a number of QL companies, as products and services are given their final refinements prior to market launch.

CST "Thor XVI" coming soon

CST's "Thor" XVI model is now in final stages of development, and looks to be a fine machine, with all the promises that were made fulfilled. There are apparently over 500 orders already and more are coming in all the time. It will be around the price of the existing Thor 1, and you should have the option of upgrading from your QL or your Thor 1 or 20 to the new model.

In response to all those of you who have asked us to do a review of the new Thor, we have been chatting to CST and they have promised to let us have a Thor XVI for review as soon as one is available. Meanwhile, we will have a twin floppy Thor for review soon...

For those of you who like us want to say with the QL rather than upgrading to the Thor just yet, and have been looking for amazing power, Sandy have something in the pipeline that should meet the bill. Have you ever wanted all those fancy interfaces you read about in one unit? Floppy disc drives, parallel printer, mouse, memory like the 768k extra of the Trump card, and maybe a hard disc interface... Yes?

If you have, then the "MegaBoard" should be able to meet your needs. It will offer all those, plus a battery backed realtime clock so that it can set the clock in your QL on power up automatically, and even more RAM than the Trump Card- 1024k, 1 megabyte.

For those of you who find that hard to believe, because you know that the QL can only have 1024k total memory, and the RAM is limited to 896k, the Sandy design will be surprising. The fast zero wait state RAM, (that means that it is almost as fast as ROM memory) will stretch from the top of the screen memory, overwriting the present 128k in the QL, to speed the whole machine up, all the way to the top of memory. The top 128k will be bank switched, and you will be able to set it up to only use 640k if you want to plug in other interfaces that would normally clash with the extra RAM.

Software wise it will have twice the ROM of the existing SuperBoard, 64k. It will include SuperToolkit 2, and Speedscreen, as well as Qjump POINTER and their dynamic ram disc driver. The ram disc will be tuned to make use of 160k that can't be linked into memory.

The most amazing thing will be the price, which is partly affected by the price of the 1mb chips needed at the time of production, but Sandy hope that the interface will cost around £500 for the basic unit bundled with a 20mb (20480k) hard disc drive. (Other sizes up to 92mb will be available.) Another option will be for a hard disc drive and floppy disc drive combined.

Slow facts on CC "Quickfax"

Creative Codewords are gradually letting more information on their new memory based database manager filter out. (Finding more out is made more difficult by their ever present answer phone.) It appears that the program will be as compatible as they can make it with QRAM and the Thor, (they like to prey on features of QDOS that QRAM and the Thor are likely to change,) and will work on an unexpanded QL.

Digital Precision upgrade again

Digital Precision have a number of new products coming along, including the usual list of updates to their new versions of programs. Programs that have updates coming along are Turbo, Supercharge (remember that one?) The Editor, and Digital C. (Yes, that last one is just new.) The Editor will be released soon in a version which makes it more like a normal wordprocessor. (Easier, not slower... more WYSIWIG.)

Desktop Publisher is about due for a version 3, but Freddy Vacha tells me that the author is doing other things. That is a pity. Maybe he is working on the new CAD 3D program that will be available soon, and according to DP will make all the other QL 3D CAD packages obsolete. We will soon see.

Software 87 upgrades in '88

Software 87 are also in the update business, with continuing developments to their Text87 program coming along. (We have not seen the first version yet, but we keep getting promised one soon...) It will apparently be able to handle more printers, and more fonts.

Page Designer 2 grows extras

The Sector Software Page Designer 2 program reviewed in this issue will soon have the promised extras. The new image processor will be out soon. That will allow you to use digitised images and to clarify illustrations by doing standard enhancements to shading etc..

Well, that's all folks! If you find something new, please let us know...

Write to Reply

Dear S.U.B.,

Having joined Super User Bureau, I have been reading the introductory copy, it struck me that you have not introduced yourselves anywhere in the publication. It made me wonder why, as although I am sure that you have nothing to hide, it seemed rather odd. It would be interesting to know who we are dealing with when we read "QL S.U.B." and phone you up.

Editor: Well, all I can say is that the lack of a formal introduction was purely an oversight on my part. The editorial this month is designed to introduce us, and of course if you phone us up, then you will probably be speaking to me directly about technical matters, or to Julie about products and services that we offer.

Dear S.U.B.,

I am a member of QUANTA, the amateur users group for the QL. I have been wondering if you are planning anything jointly with them in the way of support for the QL. It would seem like a good idea, but I suppose that you may consider each other to be rivals. Anyway, I hope that you will consider the matter, and that in future, some kind of joint agreement can occur.

Editor: Well, I am a member of QUANTA too, and I do not consider us to be rivals. As we have said a number of times in our adverts, we consider the two groups to be complementary, in that we offer different services, on a direct basis, that QUANTA does not, and QUANTA is a much larger user group, with 2000 members we are told. (If you are not a member, then contact the secretary, Brian Pain, 24, Oxford Street, Stony Stratford, Milton Keynes, MK11 1U. I am sure that a large S.A.E. would be appreciated.) We would be happy to take part in any joint ventures with any group that has the good of the QL, and compatibles at heart. If you have any ideas, then let us know!

Dear S.U.B.,

I am interested in communications and electronic mail that you mentioned, and also in the Super User Board bulletin board that you said that you had planned.

Your chance to have your say about QL matters. We will not just include all letters, rather a mixture of opinion from our mailbag.

Continued...

Please let me know when these services will be available. I will be keen to use the bulletin board but my only concern is that you are based in Co. Durham, (Ed. That's N.E. England, not N. Ireland) and that could mean a big phone bill. Is there chance that you will be setting up a board in S.E. England and other areas too?

Editor: I am glad to say that we will soon be able to offer you all the benefits of Super User Board. The authors who run two bulletin boards at present, tell me that they are in the last stages of development, and that we will soon get at least an evaluation version of the program. If you want to know more, turn to the PROTOCOL CONVERTER section, this issue. We do hope to have more than one board running, and we may hire space on other boards such as Peacenet, and a couple of others, strategically placed so that it is not too expensive to be on line to us. The other plan is for an area on Prestel, but at the moment, we are stuck with a little area on the GALLERY. (That is rather expensive to provide.)

Dear S.U.B.,

Why can you not accept credit cards at present? I think that you should seriously consider the service, as many members such as myself must wish to order, but be put off by having to pay immediately, and by post. I know there is a fee for credit cards, but the sales justify it...

Editor: We would be offering credit card now if we could, but the rule applied by the credit card companies is that a company has to have been in business for at least a year before it can accept payment by this method, if it trades by mail. We will be able to take credit card quite soon, we

Write to Reply

Continued...

have been operating since the end of October now, and we are told that six months will be sufficient. Anyway, we will let everyone know as soon as it is possible to accept credit cards. ACCESS may be first...

Dear S.U.B.,

I am very interested in the public domain software library that you have been planning. How far have you got with setting it up so far? I have a couple of programs that you can put in it, if they are of any interest. (I am not sure if it is suitable.) I also have a program that I would like to market, and I have been wondering about sending it in for the budget software label, selling it through you.

Editor: I am glad that the interest in the public domain software library is alive and well. (Public domain means free to everybody, with the only fee we charge is for copying, and the disc or m'drive.) The library is growing but very slowly, so if you have a program that you think other members may be interested in, then please send it in. We will consider it for inclusion, and agree a royalty if you wish to set one. Of course, there is quite a lot of CP/M software available. (We have no list at present, but if you let us know what you want, then we will tell you if it is available, or if we can get and convert a suitable file to the QL.)

On the subject of marketing your products, then we are now looking for software for the budget label, including games, utilities, business software, and what have you. We are looking at £7.50 to £9.95 for most of the software, but if it is superb, then we could agree a higher RRP to the user with you....

Dear S.U.B.,

I am not a programmer, but I would like to learn at least the basics of programming in SuperBASIC. I understand that you will be running courses in programming in future, whilst developing programs. Exactly what form will these tutorials take please?

This month all the letters are genuine, but may have been edited for length. We have not printed names or addresses because we are not sure who would, and who would not mind us printing their letters. You could help by marking all correspondence for printing as for "WRITE TO REPLY".

Continued...

Editor: We will indeed be doing some programming courses on a number of languages, including SuperBASIC using the interpreter, and for compilers. We will be running each tutorial on the basics of each language, and then using the information to build a useful program in each language. We hope to be starting a tutorial in the next issue on "ARCHIVE" with SuperBASIC to follow next. More details soon...

Dear S.U.B.,

I am a member of S.U.B., and have received my first introductory copy of the magazine. However, I have had some difficulty in reading some text, so I would like to see larger text used, or A4 sized magazines in future. (I may accept photocopies.) I look forward to hearing your comments on this.

Editor: I understand the problem, but just doing the magazine on A4 would mean charging twice as much for each copy, a £30 standard subscription. I hope that you find this issue better, as although the text is no larger, it should be clearer. If you really do want photocopies, then we have to point out that at at least 5p a copy, then 40x5p is £2. Then with the extra postage, and packaging, our costs on each copy will be almost exactly £30. It would naturally not be practical to have full time support at these rates if we charged at cost. We do of course hope to improve "QL S.U.B." every issue...

SPEEDSCREEN

Speedscreen claims to dramatically accelerate the rate at which text is displayed by any program which uses the standard QDOS routines to do so. Speedscreen does what it says it can do, and does so efficiently, without any real need for technical know-how.

How does QDOS display text?

QDOS allows various different sizes of character, and various different fonts to be displayed in both mode 4 and mode 8. QDOS uses almost the same routine for all the characters, and all sizes. The QL ROM routines are ingenious screen handling, and very compact, but they are not very fast. However, the Speedscreen program is up 17.5k, and that would have meant using 64k of QL ROM, making the text handling use up 25% of the ROM—more to do mode 8 text. Not practical..?

The end result of this is that any program that makes considerable use of printing characters to the screen is slowed down unnecessarily. Even the benchmarks that are run by some magazines as a test of speed are inaccurate, (benchmarks always are) because they do not take account of the different rates at which text can be displayed on different computers.

What does SPEEDSCREEN do?

Speedscreen diverts the usual QDOS calls to print a character to its own set of routines, one for each size of character in mode 4. (The software does not try to speed up character printing in mode 8, as this requires another set of routines—most serious programs run in mode 4 anyway.) There are also special routines for screen window clearing, window scrolling, and displaying the cursor. An example of inefficiency in the ROM, is that the same routine displays both the cursor as is used to clear a window.

The Speedscreen software consists of a number of pieces of code that can be configured to the system that you are using. (This process is not all that well explained in the manual, and can be bit confusing, but if you read it carefully, all will become clearer.)

Different versions are available for unexpanded machines, and expanded machines, and there are some other versions to use with programs that use illegal sizes of QL fonts such as those in Desktop Publisher. There is even a version that works happily with the Psion programs on 128k QLs.

These different versions all take up different amounts of RAM and they offer various speed increases depending on the size of character, the colour of ink/paper, and the size of character. The greatest increases can be achieved if you have a CST RAM+ memory expansion, or a ROM. We are told that a ROM version is available for the QL now, but have been waiting several weeks for them, and we have not yet been able to try one. A Thor ROM is available direct from CST now.

What does it all offer me?

Speedscreen also includes a number of SuperBASIC extensions to control the speed of display, the speed/jump when scrolling, and the selection of new character fonts. (The fonts are the sets of characters that can be shown on the screen.) These allow you to select your own character displays, and there is a character designer included so you can design your own. There are some already included, but they are unlikely to be useful, as they are less readable than normal.

Apart from a great increase in the speed at which text is displayed on the screen, great increases in the rate at which scrolling and clearing of windows is done can be achieved. The scroll rate can be increased by making the screen scroll by more, less often, i.e. the screen pans 2 lines, after every 2 lines of text, instead of the usual 1 to 1 system.

Compatibility and programs....

The main worry when buying anything today for the QL, is whether it will be completely compatible with all the other programs one uses. Fortunately, Speedscreen is written in such a way that it is compatible with almost everything. I say almost, because it does affect the operation of some programs slightly, though only if they make undocumented assumptions.

We have found that with some versions of QRAM, popping it up in mode 8 when Speedscreen is loaded makes the whole system hang. This does not happen on later versions so get a QRAM upgrade!

Speedscreen replaces the usual mode command, and makes some programs that use the "mode" call to set up their screens look a little odd, as the new mode command only clears the active windows, rather than all those open. Even SuperBASIC may not display the usual windows when you change modes.

The advantages assessed...

However, the advantages far outweigh the few problems. Speedscreen should work with every program for the QL, not just those we have mentioned, and offers a great speed increase in text output. You don't always notice the increase in the speed, but if you time it, then it is quite dramatic. The idea of a speed increase can be almost as dramatic as the increase itself— we know of someone who bought a ROM, but did not have it fitted, and still said the QL was faster...

You will notice a significant speed increase with the 4 Psion programs, especially when you have the prompts on. Quill has a faster display, but it is still just as s-l-o-w with the block commands, and text handling. (If you want to speed up Quill in the areas of screen handling, block moves and deletes, and you want the use of a caps lock indicator, and key define function, then have a look at Turbo Quill reviewed on the next pages— it offers complementary Quill speedup.)

Archive seems altogether fitter than it used to. Abacus is much faster, but one does not notice. Easel, which is graphics based does not benefit much, because it is not text based. SuperBASIC looks greatly improved, and makes compiled programs look even more impressive when run. We have no room to list all the other programs!

In ideal conditions, that is when printing white ink on black paper, in the default fount, in csize 1,0, you can expect a dramatic speed increase up to 12.6 times, in other conditions it may only give 3.8 times increase. You will not get any increase in the printing of characters in mode 8, but scrolling/clearing windows is faster.

Our final value judgement!

If you want better screen performance from all your serious mode 4 programs then Speedscreen will achieve it. It will not, however, speed up Quill at moving or deleting blocks of text, or accelerate Abacus at calculations, or Archive at sorting or searching data.

It would be fair to say that although it is not necessarily essential, it would also be fair to say that if you are doing serious work involving much text handling, then it is essential. By "much text" handling, I mean word-processing, programming, spreadsheets, databases, and many other programs.

For us, it makes the fast creation of text, and the maintenance of your database faster. Certainly, it has become one of the few items that we consider to be essential to have in use, and justifies the 11k it uses.

More technical specifics...

Here, for those of you who are so interested in Speedscreen as to want to know about the commands, and the actual estimated speed increases, we will go into further detail, and give you more technical details about the different commands and versions used. We stress that you do not need to know all this to use Speedscreen— it is of more use if you write programs.

When you first use Speedscreen you have to configure it using a special program. This offers you the choice of several versions as follows. P is a cut down version (5.5k) that will work on 128k QLs with Quill etc.. N is the fastest (11k) for expanded QLs. F, Z, and X are specialised versions (17k, 11k, and 17k) for use with various programs that use text in non standard ways such as a dtp. S and C (7k each) don't do csize 1,0.

Speed increases can be up to 12.6 times faster in the best conditions, but in practice levels from three to five times are reasonable to expect.

The commands available are unlikely to clash with any others, and can be used by compilers too. They control the speed of output, and the founts. n is a parameter, an integer/address.

```
_SPEED n      turns speedscreen on
               or off. When QRAM is
               loaded, it is set to
               on automatically now
_scroll n      sets the frequency at
               which scrolling occurs
               in relation to print
_fount#n,n,n   sets the address of
               up to two character
               sets to be used for a
               channel— the second
               address is optional
eg start=respr(875)
   lbytes mdw1_fantasy_fount,start
   _fount#2,start
               This would make your
               listing window display
               text in the fantasy
               fount that you loaded
               sets the gap between
               letters in a channel—
               you can set up a size,
               for example, between
               csize 0,0 and 1,0, or
               print 132 column text
               sets the gap between
               lines in a channel—
               you can set up a size,
               for example, that will
               allow you to print 30
               rows, or other spacing
```

All these functions are documented in a clear manner in the "manual", and with the fount designer included, it is easy to set up your own character sets. You can define characters for the ordinary text, and for symbols and foreign text available on the QL.

TurboQuill Plus

TurboQuill, from Athene Consultants is a program that customises Quill in such a way that it uses new routines for screen handling (similar to Speed Screen, but purely for Quill) and new routines for block move and delete, searches, and various other features that may not be immediately obvious, but increase the speed and efficiency of its operations very considerably.

The new cursor looks to be the most immediate change on TurboQuill, being just 2 lines, rather than a red blob. It remains visible constantly instead of disappearing, and dithering about.

The TurboQuill+ version is only for expanded machines, and adds routines which increase the size of Quill by 8k, and offers a capslock feature, and a keydefine feature. The cursor also looks fattened up again, but is just as fast, and constantly visible. The capslock indicator is not just a blob in the status area, the cursor itself is the indicator. When it is red, the caps lock is off, and when it is white, the caps lock is on.

The keydefine function is invaluable. If you press F5 a window appears from which you can select the key which you wish to define- you can then quit back to Quill, and type whatever you want- that includes commands, fonts, and page design etc.. When finished, pressing F5 then esc saves your text onto disc/microdrive for future use.

The Superb Speed Increases

Operation	Quill	Turbo+Quill
File-handling		
Load Quill	9.97 sec	5.91 sec
Import document file	699.61 sec	632.59 sec
Save as a doc file	75.53 sec	72.21 sec
Directory (57 entries)	4.12 sec	3.09 sec
Screen Manipulation		
Scroll top to bottom, by line	561.12 sec	439.91 sec
GO TO: Top to bottom	13.59 sec	10.87 sec
Bottom to top	1.07 sec	0.97 sec
Page 20 to 30	8.41 sec	7.56 sec
Page 30 to 20	8.96 sec	8.53 sec
Text manipulation:		
Block Delete - Scroll 108 lines	117.41 sec	83.24 sec
Re-enter insert mode	24.28 sec	23.91 sec
Block Copy - scroll 108 lines	126.18 sec	83.24 sec
Enter "K" for KEEP	6.29 sec	6.01 sec
Re-enter insert mode	23.51 sec	21.83 sec

Later, on pressing CTRL and a letter that you decided to define, all the text you defined is typed into Quill, complete with mistakes... (That is usually when you see them!) We use

CTRL R for receipt, and CTRL L for letters, and various others. It is a bit dangerous putting the define on CTRL because you can catch it instead of SHIFT- we originally put F3 F3 Zap at the start of each define, but we kept losing half finished letters...

(If you have Qjump SuperToolkit 2, then you can set up text on each key to be typed out in any application, by pressing ALT and the key, but you cannot easily include cursor movement and function key presses. This useful function as already described allows you to define all your key presses.)

As the customisation program needs to alter Quill, you need to select the version of TurboQuill that matches your version of Quill. (This should be displayed when you boot off the original Quill microdrive you got.) If you obtain the wrong version, it will not allow you to alter Quill. There are special versions available for 2.3 and 2.35, ask us for details.

Multi-tasking & TurboQuill+

The customised version of Quill can be made compatible with Spellbound, (which uses several keys with CTRL) and will work with QRAM, Taskmaster and other multi-tasking controllers. It will also work with the Qjump Qtype spelling checker. TurboQuill (plus) and Speedscreen speed up different Quill functions, so ideally one would use both programs at once- we do!

Quill looks to be far more competent and professional, and gives one the impression that it knows what to do. Athene claim an increase of over 100% in the speed of screen output, and it is best demonstrated when the prompts are left on- where they normally hold up your key presses, they now flash on and off, and change very quickly.

If only there were others...

One feels that if there was a similar product for Abacus and Archive of the same type, then the whole suite would be far more popular. Athene have no plans to produce similar programs for the other Psion programs, which is understandable, but regrettable. With Speedscreen you get faster text, but the processing itself is no faster. (That is the purpose of TurboQuill.)

It is indeed rare that we can review two complementary products, and can recommend both unreservedly. In this rare case, we are pleased to do so. In fact, I would say Quill converted, is almost a new wordprocessor. Other options for a faster word processor are the Digital Precision Editor, and Software 87, "Text 87" for which we are still awaiting information on, but hope to be reviewing in issue 2.

FLASHBACK

Flashback from Sector software is a product that has been hailed as being almost essential for every QL user. We will examine those claims, and see just how much hype is involved in the other reviews of the present product.

A database is simply a collection of related data that is stored in a way that is (hopefully) both convenient and efficient to retrieve. There are a number of basic terms that need to be explained to understand databases.

A good example of a database is your telephone directory or yellow pages-

A file is a whole group of related information on one subject. (Telephone numbers in your local area, perhaps.)

Each individual line in the book is a record that holds various data on one subject only. (On one person only.)

Each part of the record is called a field. (The title, initial, surname, address, district, and telephone no. are all fields within a record.)

What is FLASHBACK?

Flashback is a memory based database system, not a database manager. We see the difference as being that you can program your own environment with your own menus, and do complex multiple file handling on a database manager. A database system simply handles data according to a number of predefined rules that are fast and easy in use.

If you are looking at Flashback with a view to setting up a custom system, then you will be disappointed. There is as yet no programming environment available. The system is basically a very advanced file index system. (It has hidden depths, but to delve into them requires some imaginative use.)

What about Archive?

You can do all that and more on Psion Archive, a database manager. Supplied as standard with the QL, Archive has always come in for a lot of criticism for its slow handling on files, and its cumbersome commands for beginners, and non programmers. It is the basic flexibility of the product that makes it hard to use. (Obase for CP/M and PC computer systems is far worse to use.) The Archive system is also available for other computer systems, and it is possible to transfer programs and databases between computer systems. There are also a number of commercial programs available that use Archive.

ARCHIVE & PROBLEMS!

What the Archive system lacks is the basic simplicity of the other programs in the Psion suite. If there had been a simple menu driven mode available, and the option of a built in RAM mode for the program, then there would have been much less need for Flashback or other RAM based database systems.

The reality is, however, that Archive is not as fast or as easy to use as it could be, and it imposes unnecessary limits on the size and structure of the fields, and number of records.

The other problem with Archive is that it takes up a lot of memory itself, and it can easily corrupt and lose all the data stored in files if the user is careless. Once a file is opened, the file will have a different status. If the computer is turned off before the file is closed and the file status is changed back, the file status will stay set to open, and any subsequent attempt to access the file will meet with failure. There is no easy way to recover the file, or records in it.

FLASHBACK SYSTEM!

Flashback is different because like a text editor, it loads the whole file into memory, and accesses from memory. It only writes data that has been altered or added to the file to the disc or microdrive when you ask it to. Therefore if your computer crashes, you will lose any data in RAM, but the data on the disc will be intact, and can be accessed again without problem.

The other obvious advantage of having a memory based database is that all the data is available without having to load and save bits. This means that searching for text, sorting and maybe selecting certain records can be done directly, without any loading etc..

At this point, another set of database terms need to be explained in simple terms, as the advantages in speed and flexibility that Flashback offers can not otherwise be appreciated clearly-

Sorting is a physical process that actually puts records into some kind of order, and means moving data about.

Ordering also puts records in some order, but usually does it by setting up an index that the computer uses to refer to records. This involves no actual reorganisation of records.

Selecting is where certain records that fulfill certain conditions are picked out, and made the only ones for consideration by subsequent commands. For example all names starting with Q, or all records added on 25th December can be selected, and only those used.

Developing Systems Pop-up databases

The program is under development, and eventually there will be a command set to use from SuperBASIC to allow you to program it just like you can Archive. At that point you will be able to set up your system, including menus, and whatever else you wish. You could set up a database system including moving graphics and sound, if you wished... The other module is a report generator that will allow easy display of data, and a built in mail-merge facility. All these features are "coming soon" so we have not considered them here.

After running the boot program, and setting the program up for your system you can then boot up from microdrive or disc. The system will work even on unexpanded QDs, although you will be quite heavily restricted on the size of files that you can handle in 128k.

The program can be set up to boot with other "SECTOR" software, Taskmaster, and Spellbound. It can also be set to automatically load a database file. It will not work with some of the other job managers such as jump GRAM. It is probably most at home with Taskmaster, and the Spellbound spelling checker.

The first copy I got came without any manual, which was a disadvantage, but quite a good test of how easy it was to use. First impressions were not good. I loaded it up, and nothing at all happened. I tried again. I pressed every key in frustration. Eventually I got a telephone call to explain that my copy was a beta test one. Finally, I was told "it works- press ALT \ to pop it up..." How had I missed that.

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This review is now of a later version, but you still pop it up with ALT \. It is a good idea really and the keypad doesn't clash with anything I know of, that cannot be altered, eg TK2 ALTKEY. (It can be reconfigured as required.)

Once you have popped up the package, you can resize the window, and display all the commands available. You have all the usual archive commands, or equivalents, but they are faster to achieve. You can either press F3 and the initial letter of the command, or just press CTRL and the initial. You can also select from the menu after pressing F3 by moving a menu bar with the cursors and selecting with ENTER. As it is hard to see just what you can do with Flashback data without knowing about available commands, this list has Archive equivalents in brackets.

- A = Adjust window size/position
- B = Back a record (back)
- C = Create new record (insert)
- D = Delete record (delete)
- E = Edit field names (no equivalent)
- F = First record (first)
- G = Select Group (select)
- K = Kill group selection (reset)
- L = Last record (last)
- M = Merge file (similar to import)
- N = Next record (next)
- P = Print out data (selective dump)
- R = Read file - recovers old file
- S = Search for match (find & search)
- T = Transfer data (no equivalent)
- U = Undo changes (escape in alter)
- V = View (like a dump to screen)
- W = Write file (close & open again)

You can define up to 60 fields in each record, (you can also have a variable number of fields in a record) and your field lengths are completely variable. That also means that the entry of data has to be somewhat altered- instead of pressing enter/tab for the next field, you press shift ENTER. That inserts a "field marker", a small white box that indicates which field you are doing. That box is not fixed, but moves about to accommodate data as necessary.

Flexible data entry

The name of the field that you are currently on when entering records is shown in the information area. Editing is powerful. Pressing ENTER on its own inserts a new line and you could write documents in Flashback if you wished (certainly notes on records) confident that the wordwrap will make your text work useable. (Without restrictions.)

Complete Control

You do not have to enter something in every field of every record, as you can make the record contain only certain fields if you wish. This is more flexible than simply having variable length fields. (Which is essential in any serious database.) You have complete control of record structure at all times, and you can decide to add fields or delete them.

Archive Conversion Hidden Depths...

In Archive you have to set up a new database and transfer all the data, a job which, although not difficult is tedious, and not practical if you are often changing the format of records. If you have an existing database on Archive then a program is supplied to convert the data into Flashback form.

If you have run into size limitations on Archive, then you will have to consider the size of your existing file. The size of an Archive file is limited by the indexing capacity used, and by the microdrive/disc capacity.

On flashback, memory determines the size of the file available. On an 896k system your file could be bigger than you could squeeze on a disc... Thus, there is still a limit on capacity—about 8000 average name and address records is what has been indicated. There is one more limitation— that is that if you are running the program on a 128k machine, or on a multi-tasking machine with Quill, or other programs, then you should be able to store more on Archive, as it is only storing references to data, not data itself.

Speed wise, there is clearly a vast difference between the speed at which data can be found and processed on Flashback when compared to Archive. All operations of Flashback have been almost instant during testing— setting up an index, and selecting records on even 500-600 records on Archive can take over 30 seconds. The versatile method of selecting various groups during processing is then impractical.

It must also be said some criticism of Archive is due to bad programming. I would not be surprised to find that there are people who think Flashback is slow when they come to program it. Archive can be made to find data from huge files almost instantly— it is really where repetitive processing is necessary that Archive is so slow.

A simple card file is easy and natural to implement for almost anything from your name and address book to a list of slides, (surprisingly common,) your business contacts (easier and faster than a pile of business cards) a list of stock, or a standard letters. These applications can be made particularly easy by unique "Flashback" features. If you have imagination, or a particular application, then you will find a way to implement your needs using it.

What I should already have said is that if you have to look for uses then don't bother to buy a database. If you have a manual system that is quick enough, and is reliable, then there is no point in changing it— you may be asking for trouble if you do. If you do, MAKE LOTS AND LOTS OF BACKUPS...

There are hidden depths to Flashback that are far more difficult to get used to. (They are where the manual really gets itself into a knot trying to explain things) Each field can have a number of "sub records". The manual also includes some examples, and after considerable confusion, and a couple of attempts we sorted out just what that can mean in terms of usefulness.

Imagine you set up a business database file containing fields called Company, address, town, county, post code, telephone, dept., ext. no., surname, and position. Now you enter all the data for one record. Now editing the field name of the department, (the seventh field,) we press Shift ENTER at the name end, and an asterisk (*) replaces the existing marker box. You can also type an * to do the same.

"Flashback now considers that all the field markers including, and following the asterisk are a sub record within the main record." says the manual. Now you can edit each record, and type shift ENTER at the end of the contents of the position field. (The last.) Now a new asterisk has been inserted, and now you have a sub record. You can type in any numbers of the sub record and even process these. (That next.)

What this means in practice is that using the example again, you can have any number of contacts in one company, complete with a record of their jobs and phone numbers. For example, the director, the manager, the sales girl, the stock control manager, and so on. In Archive you would have to restrict yourself to just one person. (eg the receptionist from who you could get the other numbers when phoning up!) or first define all the jobs in all your records, and only fill in the ones that you have matches for. Then you find a company with a sales and stock control inventory despatch clerk...

The manual is right, demonstration is the easy way to explain. The @ is meant to be the field marker. The * marks the start of a sub record.

Company	@Mega User Gurus
Address	@@ Temple, Shil-Don, Tibet, TL44 22L
Telephone	@03-88-773737
Contact	*Ju-li
Subject	@Sales & Administration
Contact	*Ri-char
Subject	@Support & Consultancy

If MUG suddenly employed another guru called Q-EI then another sub record can be added by pressing shift ENTER at the end of the word Consultancy. The next field is "contact" and so on. This is incredibly flexible, and you really start wondering how you can do without it in Archive, but you do...

Practical Application

Ok, so having typed in all your data, and having finally figured out just how to get the best from the system, and having learnt when to press ENTER and when to press shift ENTER, and F5, and F4, and Shift TAB etc., you want to do something practical with it all.

There is no report module, so you cannot design a form, and ask it to output the results. Reports can really be achieved quite easily, but learning how takes a lot of work in my opinion. (Well it took me a while- though I am a programmer, and I find Archive among the easiest and most flexible database that I have worked with so maybe NOT!)

The group command allows you to select all records that match some criteria. For example, to list all the companies in you file that are based in London, you group on town, and select London. You can then order on a field too. You choose to order on company, and you see all the companies selected ok. If you want to list all those that are Ltd you could group again on company name and match for Ltd, ordering again on company name. It works again... The grouping allows several conditions to be used by repeated selection.

Twin Data Windows

Now we will have a look at the other feature of Flashback- the second data window. This window operates on data in sub records, and the first operates on data in the whole record.

If you have a list of firms, and each has a list of contacts with the job title, then you may wish to select and display all the directors. You group on job equal to director and order on the persons name. Oh dear! You have directors, sales executives and all others listed. The problem is that the first window displays all sub records when it finds a match in any. Pressing F4, you can use the second window. You repeat the grouping in the same way as before and it works! The second window only displays sub record that matches. The second window is also used to display data so that you can compare it with other data from the same file, or copy data between some records.

Just a card Index?

It will be interesting to see what the command language, and report module will be like, as without them it is too much like an advanced card index system. For example, we could set up our database of customer enquiries, and members, but we could not easily maintain it, as Flashback lacks the control necessary to create a system that does not require user training.

FLASHBACK RIVAL?

"Flashback" now has a new rival in the pipeline, (although no fixed date for release is yet known) from the authors of "Speedscreen", Creative Codeworks. "QuickFax", as it will be known, will offer similar facilities, and will be programmable from any language.

For those of you who use the "Thor", from what we can tell, Flashback will clash with the real windowing provided by the Thor operating system. Sector are keen to make it compatible, but they do not have a Thor to test it on, so you will have to wait anyway.

I do not really see that Flashback and Quickfax will be rivals. They will evolve differently, and are probably aimed at different markets- Flashback at Taskmaster business users, Quickfax at more proficient QRAM or Thor users.

In its favour, as it is now, Flashback lives up to all the claims that have been made by Sector Software for it. It is very fast, flexible, and very powerful. It is easier to understand (in theory) than Psion Archive, but is more appropriate at present for the more experienced users. Certainly if you do not "get on" with Archive then you should think carefully about it.

It is not yet an alternative to Psion Archive as a database manager although it is likely that it will eventually make a superior system. (Promises are not a justification to buy a system.) Many users simply want what it offers now and to those users who want to maintain an indexed list of their data and produce efficient reports, but do not need to set up custom systems, or do complicated automated processing, I would recommend the system completely.

Promises, Promises.

The scope for using the system will be vast if the programming language lives up to the standard of the base module. I really do look forward to reviewing those additions, as the promises that have been made indicate that it will be one of the most powerful pieces of software available for the QL.

Flashback is a product that justifies more space than we have given it. Many uses for it will be found as users get to know its flexible capabilities.

It will also cause quite a lot of users confusion and irritation until they are used to its unusual format. I also feel that many will never try to discover those hidden depths and the power available- when the command language and the report generator appear, I would not be too surprised to see a small book on it appear. To do it full justice, it may need one.

PAGE DESIGNER 2

Page Designer 2 by Dilwyn Jones is a superb package for designing pages of various sizes which include text and graphics. It is now marketed by Sector Software, and since we bought the 1st version, Dilwyn, and Sector have been kind enough to keep us updated with the latest versions of the packages as they have gradually become available.

We are happy to print the fact that due to its outstanding superiority over similar packages at present in the area of text handling, most text pages in this issue have been produced using it. (We also use Special Desktop Publisher from Digital Precision for the pages with elaborate fonts, and headings, and have used Gap Software Front Page Extra/2 for some content.) As this is the case, we have not done a plain demonstration page or screen—consider this page and others as such!

RUNS FROM DISC AND NEEDS 384K

Page Designer was originally a program contributed by Dilwyn to the QUANTA users library, but then he completely rewrote the program, and the result after many alterations is what we are reviewing here. A number of support programs were available for the old version, and new versions for the new program will be made available, so we are told, in due course. Of course, as is the case with all programs, there are always bugs introduced during development, and killing these off will be the first aim, with the other programs following along quite soon.

THIS VERSION IS COMPLETELY NEW

Page Designer 2 is a large system that at present can only be supplied on disc, due to the number of files, and the size of the main program. (170k) A version to run off microdrive will be available too but will be inconvenient as it will require frequent swapping of media during loading, and access to the utility programs. The system also demands at least 256k memory expansion although I think that using it with 640k, or 896k would be more useful. We can only fit one full A4 page at this printer density in memory, although you can produce an A4 page at other printer densities in less memory.

The system consists of the desktop publisher program, character, pattern, and hi-resolution fonts, a utility to spool files to the printer (send them to the printer while you do something else) and a large collection of fonts and character sets, and a big manual that clearly explains all functions.

First we will examine what should be able to do with Page Designer 2, and then we will look at how well it does it all, and what else it can do. In the coming months, we will be doing reviews of all the desktop publishing packages on the QL, and explaining just what they are good for, and how well they compare with each other. We have chosen to start with PD2, (as it will be known from now on) because it is the newest product, and is now the one most used in this publication.

A desktop publisher is a program that allows you to create a publication using entirely computer generated results, and then produce camera ready copy using a computer printer. This can then be reproduced by whatever means is most appropriate to the quantity required. The important point is that the original is finished, and needs no typesetting, and there is not necessarily any need for cutting and pasting of paper illustrations.

To be practical, it should either use text imported from a wordprocessor or the user's choice, or allow the easy creation of large amounts of text in the package itself. (If it takes this route, then it should also allow the use of spelling checkers.) The user should be allowed to easily mix large and small text, and select any format for the design of the publication.

It should also allow the easy use of illustrations, including graphs and labelled diagrams, generated either in the package, or from other packages. If the illustration is to be a photo, or something already on paper, then you should be able to allocate an area of the page for the later pasting of that piece of paper. An easy method of deciding how much space is needed.

You should also be able to see what the whole page looks like before you actually print it out. This means that you can judge how well your design is progressing as you go on, and you can alter layouts without having to scrap the lot and start it again. As most computer systems will not be able to display a page complete a popular method is to display part of the page as you work, and have a view screen that allows you judge it all.

Finally, having designed your pages, and finished the contents, you should be able to output the results to your printer confident that you will a true representation of what you designed on the screen. Preferably, and limitation in resolution of the display should be reduced when the pages are printed, as a printer can produce high resolution.

DEVELOPMENT WITH CONSULTATION

Page Designer 2 has been developed over several months, and has had the constant comments of many early users. It is, therefore, better configured to the needs of its current users, and its potential new users than some other packages, particularly those for the IBM. The Gap Software "Front Page" series, of which I am told Dilwyn is a user, has also been developed with the constant cooperation of regular users. The DP Desktop Publisher package seems to be have been developed without any consultation with users before sale!

There is one particularly unusual feature of PD2 that is possibly a bad point, rather than a plus. It offer up to 4 colours on the page- that is good but it means that you need to use twice as much space to store the page image in memory as you do if it was only in black and white. Other QL desktop publishers allow you to use only black and white, with more pages.

The result of this is that the package offers many features, and is very easy to use, although it is supplied with a 60 page manual that goes into almost too much detail. It has information on almost everything. The only problem really is that it is so large that it is almost an effort to sit down and read it all from front to back. The other is that there is no index used. The package is very easy to use, and is largely self-explanatory, so the manual is really only there for when you want to do something, but don't know if the package will allow you to.

GETTING STARTED, SETTING UP

Of course, the first thing to do is make a back-up of the complete system. Instructions are clear, and a backup program is provided to save hassle.

You should also run the configuration routine at this point too, if your printer is not completely Epson RX80 compatible, or one of the ones listed. (We would just like to remind you that if your printer is not a dot matrix or a compatible laser printer you cannot use it.) If your printout is correct then you can always run the program later, and set up the relevant codes. The printer driver is superb. You can choose codes for graphic mode, graphic line feed, multi-pass graphic line feed, and so on- all controls. If only other print packages were so flexible!

Presuming that the system is now set up ok, and a backup is made, you boot the system. The first thing you see is a menu offering the options of running the PD2, the fount, character set, or pattern editors. You can also quit. The menu system is used throughout the system. A list of options is displayed

and you move an inverted bar over the one you wish to select and press space or ENTER. Pressing ESC gives you the option of escaping from each level. The menus usually pop-up on the screen when you press ESC from a page view.

We will elect to load PD2. In previous versions after a short wait while the program loaded off disc, you faced the main menu. The latest version allows you to configure certain defaults from within the package, and save them in a file that PD2 always looks at, so that you can set it up to automatically set up a page size of your choice, load in the character sets, and founts that you wish to have available by default. You also set various other defaults.

SELECTION OF YOUR APPLICATIONS

The main menu has the options below- Graphics, Text, Hires Text, Import Text, Files, Eraser, Page, Cut/Paste, View and Quit. The order is of no real importance, there is no clear concept. If you are going to be doing mainly text handling, (like us!) then you will be using the page, text, hires text, import text and files options.

Graphics allows you to use some fairly simple graphic tools- Dilwyn points out in the manual that if you want to do graphics, there are plenty of good graphics packages, and PD2 will allow you to merge results from those onto the page without too much difficulty. You can still draw lines and arcs, fill shapes, recolour areas, and use your "brushes" to draw block areas.

The text option is really designed for doing small areas, not writing text. It is useful for touching up mistakes and for writing text in small or odd shaped areas, or for labelling things. The text can be in any valid QL size from 0,0 to 3,1. We use 2,0 for ours. You can position it to pixel accuracy anywhere on the page, and you can load in any QL founts, or use your own. At present they are all designed on the quite low resolution grid used by the QL display, giving text a chunky feel.

The hires text option allows you to type text of a large size. Starting at 16x16 pixels, hires text can be blown up much larger- to full screen size. Of course you can use any typestyle supplied, or create your own with the hires fount designer supplied. These characters look attractive, but they are not practical for large amounts of text, being more useable on headings.

On selecting the import text option, you are asked a series of questions, and then you reach another menu. The program recognises Quill_doc files automatically and deals with them with no problems, and will allow you to strip leading spaces from text, and select up to 10 columns, and more.

USING TEXT FROM QUILL OR EDITOR

The range of options of how to import text either from Quill or an editor is very good. You have full control over the format of your page— if you choose to use the semi-automatic system, and simply define two columns for example, you still have control over the space between the columns, the number of characters a line, (if you want) and the option of creating a border around the page and keeping text inside it. You can also decide to define a single column (any size) anywhere on a page.

When you have decided where you want the text to go on the page, you can choose how you wish to justify your text, what font you wish to use, the colour of the text, and linespacing. The justification can be set to left only, right only, centre, or none. When it is set to both, you can choose to justify it by letter or by word. An important change in this version from previous ones is that you can now skip text much more easily— on a seven page document after doing page one you can skip to page two text, and so on.

I would not recommend anyone to create text on PD2 or the others. Write you text on Quill or an editor. Bear in mind is that although each package can reformat each line to the set width of your columns, you will not know how many lines you have written— use a page size to match your dtp, and leave blank lines for photos and headings.

The next option is files— that offers a comprehensive set of routines for handling microdrives/disc etc., but as PD2 is fully multi-tasking you should be able to use SuperBASIC anyway. Some of the options are also duplicated on other menus. (For convenience?) This menu also includes the only option to print out to a printer. You can also print out to a file and use a spooler supplied to print multiple copies while you get on with something else —in practice photocopies are quicker!

The next option is just an eraser, a block that deletes the background and can be changed in size when you want.

The page menu is another vital option. It gives the options of moving your cursor, defining new pages and sizes, merging existing ones and swapping between existing ones. In theory up to 9 pages in RAM (if you have enough and the pages are small enough to fit.) There are also various save options, including full page save as bytes, or as a compacted graphic file. (It looks the same when loaded but takes up less disc space.) There is a load old page option of course. You can also switch and copy between pages... The other option hidden away on this useful menu is the preview option which lets you see a miniature picture of a page.

On the main menu there is also a very flexible cut and paste option. You can reproduce an area of the page in ram and manipulate it for effect, or just "paste" the section onto the page in another position. You can even rotate, rotate, magnify (or shrink) a section.

EXAMINING YOUR FINISHED RESULTS

View simply allows you to move around the page without the danger of typing or drawing anything onto the screen. At all times you can pan and scroll around the page character by character or in larger jumps. This makes finding the section you want much easier, and is well implemented. As the page size is not limited in the same way as on other QL desktop publishers, you can have very large pages up to RAM space.

We do not use Page Designer 2 for all the pages, or all our output. Desktop Publisher Special Edition from Digital Precision is a superb program that is only let down in its text handling by a number of disabling bugs. That will also import text from any file, and display in columns. Our problem with it is that it does not wordwrap or justify correctly in the columns— no use to us. It can also use wider QL characters (hires) to improve quality.

Where it excels over PD2 is the use of the large number of versatile hires fonts it can use. From one basic set (defined on a 16 by 16 grid) you can anytime produce left or right italics, use bold, reverse, rotate or inverse characters, and do various operations. Special Desktop is ideal for adverts.

Gap Software Front Page Extra/2 now has the ability to do QL text sizes in hi-res fonts. When it is possible to use that facility for importing text, the quality of output of text such as this will be vastly increased! It is also very versatile, and offers some facilities not (yet) available on PD2. I am sure there will be a FPX/3 soon!

THE PROS AND CONS CONSIDERED

When it comes to pros and cons, PD2 does everything outlined, (and more) efficiently and easily. Certainly you can produce pages like this far more easily than with the others, but it does have its limitations— the size of the 4 colour page file uses a lot of memory, and the quality of text fonts needs to be improved in larger sizes.

If you want to produce a publication involving significant text handling, then we recommend PD2 from experience. We could not do without it now... Buy it from us, or Sector— this is not sales talk, nor because the author is a member. It is confidence in quality. There is still plenty of scope for new features— hires 2,0 size text first?

"QL Terminal"

QL Terminal from Qualsoft is another of the new packages that has arrived on the QL market recently, and offers what I have been expecting from a QL communications package ever since I bought my first Tandata QCOM system. With the inadequacies of the Tandata software, there is an obvious market for a replacement package for what is certainly the most popular QL modem. What is more, other modems for the QL have been produced, but they too have suffered from poor software support.

QL Terminal changes all that. It is a pure machine code program written to take advantage of the multi-tasking capability of QDOS, and as the author uses QRAM, it is particularly robust, and will work with almost anything. That is not so strange a thing to say - it is the first package to do so. It will also work with the Astracom, the Astracom Hayes, plus the Miracle Modadapter linked to almost any modem. (Which has proved quite difficult.)

Real multi-tasking

It offers three terminals, a VIEWDATA terminal with full Prestel graphics, and a capability to do perfect dynamic frames, (ones using moving graphics,) a VT52 terminal, and a simple ascii terminal for use with bulletin boards.

The package does it all. It is fully multi-tasking, and can use software buffers on the serial port as offered by QRAM and the Trump Card. (They should be set to PRT, as should the printer. Buffering the modem i/o makes the system rather odd.) It works on any QL or Thor, regardless of memory. Don't worry about an unusual keyboard - there are no odd key presses, and you can make it beep specially to register keypresses in upper and lower case.

It will use, and run from microdrive, floppy/hard discs, or ram disc. It can load a default file from any medium, and be configured to start off in the viewdata, or VT52/ascii modes. You have two pages of telephone numbers to configure, and can have individual sets stored under any name. Each no can be individually set up for baud rate, terminal type, and all the usual communications details that are used. You can also use the system in local or echo mode, on a hardwired link into a larger computer system, or other QL. Accessing a computer system may be as simple as selecting a service, and pressing 0 to dial. Then, hey presto!

In VIEWDATA mode, it will print a text screen dump to almost any printer and to Epson compatible printers in the shaded graphics dump mode. The text dump can be on the left or the right of the paper to fit twice as many 40

column viewdata printouts on. You can save viewdata screens and then reload them in later so that you can edit them and print them out. You can also highlight the control codes used so that you can see how the experts create their fancy graphics. To help you do yours, there is a pixel editor. It enables you to create viewdata graphics as though plotting dots, and of course there is an off-line editor.

In VT52 or ascii modes, you can spool all the screen output to a file or to the printer, send and receive files to and from remote bulletin boards and electronic mail services such as BT Telecom Gold. It supports XMODEM with CRC checking, and it can download a file while you get on with something else. It suspends the screen output so you do not have to wait for it to finish downloading everything, and beeps when it has finished doing so...

You can define macros - for example one to log-on to Telecom Gold, read all the mail, and print it out, delete it, and then log-off, all automatically. You can create suitable messages for most common services using the Quill doc file templates supplied, or create text on-line using the simple editor built-in. The finished text can then be transmitted immediately from RAM.

Easy to configure

You can set up almost any options you like, and the whole package is easy to configure. There is online help with keys, modem/line status, and commands, and the whole system is driven by pop up menus and single key presses. There is also a clear A5 manual that is easy to understand, and quite clear about what it is meant to be saying.

If you still get stuck, you can even contact the author on Peacenet, or contact me of course, on Prestel... If you want to know something specific about something that I have failed to mention here, please contact me. The author, Tony Price says "if you like QL Terminal tell others about it, if you don't tell ME." That statement is significant, because if you contact Tony, he actually replies, and further more, he does his best to help you.

Save up for it?

I really cannot recommend this package too highly. It makes using my modem with the QL far more professional, and it makes downloading software far less tedious. If you are a regular Prestel user, or you need electronic mail then you need it. I am certain that you will not be disappointed. Buy it now, or save up for it - it is available from us, or Tony Fishman Services, RRP £30! (Updates to v2.2 from v2.0 cost £4 - that includes a new manual.)

THE TANDATA QCOM SYSTEM

Among the items that Sinclair said they would produce for the QL was a communications module and modem to allow access to electronic mail and linking to other computer systems.

They authorised a company called OEL to produce the official QL modem, to match the QL system. OEL had impressed Sinclair with their UTX 5000 modem for the Spectrum. (That had actually made Sinclair shelve their own plans for a ZX modem!) It was not to be badged as a Sinclair product necessarily, rather to carry Sinclair approval. However, OEL hit financial difficulties, and the modem joined the list of products for the QL that were late, or shelved.

When it did appear it was from Tandata who bought out OEL. The original cost was around £230 for all modules- now the same system costs around £80...



The system is modular, and the units stack vertically and look impressive. The 1st module is called Qconnect, and allows the QL to transmit and receive at mixed baud rates, and to buffer data in hardware. The basic QL can only transmit/receive at the same speed, and cannot buffer data. There is also a connector into which you can plug almost any modem, or suitable lead for another computer system.

Qconnect can be set up to use any modem, and it is "intelligent"- this means that it can return error reports or respond to programmed instructions, not just any switches or signals. Qcon plugs into ser2, and takes its power from the QLs own power supply- a fly lead passes power on to the QL.

The other modules are Qmod, a modem suitable for Prestel, and electronic mail services, as it offers 1200/75, and 1200/1200 half duplex speeds. The other unit for use with Qmod is the Qcall unit that offers auto-dial, and auto-answer. That plugs between Qcon and Qmod, but is only of use if it is being used with the Qmod modem.

The software that supports any modem really determines how useful it is. Software for the Qcom is supplied on microdrive but stems from the early days of the QL. It fails to take advantage of the QL's ability to multi-task, and amazingly is written in such a way that it will not work on machines with more than 128k without doing a special reset that reduces the memory to only 128k. Even worse, it does not work with disc drives either, as they use more ram than microdrives, and there is not enough left to load the program after using them in only 128k as set up on the standard file.

There are ways around the problems, but the hassle may not be worth it- maybe you would be better with other software- there is plenty available.

Using the supplied software, you can access Viewdata services like Prestel, use UTS2 or UT100 terminals, and use an ascii terminal for some bulletin boards etc.. Everything on it is menu driven, and it is not a bad design. The system is comprehensive, but is far too inflexible. You cannot just exec the package, you have to boot your system. You cannot even just load the program itself, you have to load a lengthy set-up program each time, and it makes operations rather tedious.

When on-line, you can print viewdata frames, spool all text from the screen to a file or printer, save displays, prepare off-line messages and frames, and download software in various ways. You can also use Xmodem file transfer.

In operation the Qcom system lives up to expectations. It is competent and in most cases reliable. (Some Qcall units need tuning for reliable use of the auto-answer feature available.) It is also completely compatible with the hardware, and it does not drain too much power from the possibly already overburdened QL power supply.

If you are looking for an economical and reliable modem, or you need to connect your QL to a mini or mainframe system, then the Qconnect system will allow you to select what you require, and make efficient use of resources. Also, if you want to connect another modem to the QL then the Qconnect system will also allow you to do so. It is modestly priced, but good value.

If you want to use your QL to run a bulletin board, or you want to access a system by modem at a higher speed, then you will need to buy a faster modem and plug it into the Qconnect external modem socket, or buy one of the other intelligent QL modems such as the Astracom, or Astracom Hayes. These are considerably more expensive but naturally offer much more power.

MIRACLE SYSTEMS

TRUMP CARD

When the QL was designed, a 512k RAM expansion was listed among the future products to be available for it. The 512k RAM pack that was supposed to be offered by Sinclair never appeared, but many other companies stepped into the breach with various upgrades in stages between 128k and 512k. (The first memory expansion boards worked out at around a pound per K to buy!)

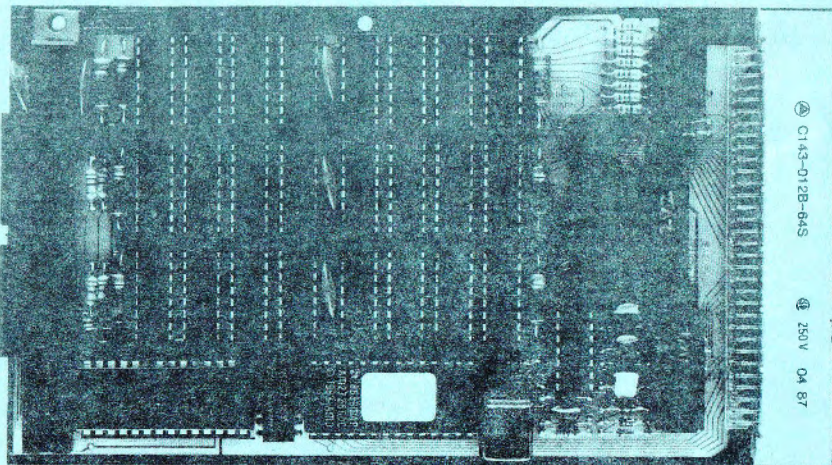
The journalists said 128K was a lot. Only a few people would really want the full 640k of memory possible if you added the full 512k expansion... Few people doubted that assumption.

Now, with vast numbers of people using 640k QLs, many programs need at least 512k, and many demand the full 640k. Wouldn't it be nice to have even more RAM available—say 1024k? Well, that is not quite possible at present with the QL—there are new compatible machines that will do that—the Thor XVI for example, that is upgradeable immediately to 6.5mb now, 8mb later.

boards, and there are few people who have more than one interface, there would be a market for an expansion board that uses all the memory space. They thought that as most people only want RAM and disc drives, and maybe a useful toolkit on ROM, then why not add a disc interface, and Toolkit 2, and utilities, all on the same board. The Miracle "Trump Card" was born.

The Trump card offers on one unit, 768k of fast external RAM, a disc interface, Qjump Super Toolkit 2, and some Qjump utilities from their QRAM. The whole unit is housed in a smart black metal case that only sticks out of the end of the QL by a few cms.

The QL cannot subsequently be fitted with any other interfaces, even if you get a two way expansion as the whole 1024k address space is used. The only free space in the QL memory layout is filled with a 32k ROM which contains the useful ROM utilities. (Cartridges can still be plugged in the ROM port.)



Incidentally, as the Thor 1, and the Thor 20 are both developments of the QL, the same limits on the RAM memory capacity of the QL apply to them. You cannot plug in any extra memory to a Thor, as it allocates the space used by the Trump Card to expansion units.

The engineers at Miracle thought that as there was 256k of possible memory space reserved for EPROMS on expansion

The Trump Card has already taken the market by surprise, and is proving to be an extremely popular expansion card because many users are simply looking for the expansions offered, rather than theoretical expansion options. The offer of features now, rather than developments later being the winning consideration to many. Memory or expansion—unfortunately you must have one, not both, at present.

The ROM extras included...

The utilities include a RAM printer buffer, hotkey screendumps, (hotkeys are keys that when pressed produce a particular action from any program) and a fast dynamic ram disc driver. Also included is a procedure to make the QL think it has only 128k so it can run "naughty" programs that are designed to work only on 128k QLs.

A ram disc is an imaginary disc that is created in part of the memory and can be used like a microdrive or disc to store programs and data, with very fast loading and saving speeds, but loses its contents when turned off. The reference to dynamic means that the area used can grow and shrink according to how much data is stored.

What can I use 896k for?

With the mammoth 896k RAM, the QL system is particularly efficient. QDOS allocates spare memory to store data from microdrives and discs, so that when needed no file access is actually necessary, making all file handling faster and more efficient. For example, even with Archive, the QL rarely looks at microdrive/disc.

With many more users "upgrading" to 640k, and disc drives, programs that are becoming available are using more and more RAM. We anticipate the day when a program will appear that requires at least 896k, and prefers more. (The Thor XVI QL compatible will be expandable to over 6.5mb.)

If you want to use one of the modern multi-tasking managers such as QRAM or Taskmaster, (or if you already do so,) then you will find that your memory is being used up faster all the time as new additions to QDOS become available, (such as POINTER,) and programs get more complex.

Probably most users who use the Trump Card will be tempted to go for the QRAM system, the likely new standard. The QRAM system was designed for the Futura, and offers a vastly improved environment, but requires very large amounts of RAM, as it stores the screen from suspended programs in memory, and then redispays it when you switch into each program again.

The ROM utilities make work easier in a number of areas— for example the printer buffer will let you print a file from Quill, and it is stored in spare RAM to be sent to the printer as necessary. (This means your RAM fills up with the text you have printed, and gradually empties again as it is printed out.) The screen dump lets you dump the screen of any QL program to the printer, even that game or non multi-tasking program...

What about disc drives?

The disc interface conforms to the Sinclair standard for the QL. It sets up a new QL device called flp that operates in exactly the same way as mdv. There is more detailed reference information in the introductory copy about discs, and using disc systems.

It will support up to four 3", 3.5" or 5.25" disc drives, giving 720k free on a double sided 80 track disc drive. If you attach lesser drives then you will get 360k, or even 180k per disc. You can actually read 360k discs, so you can swap discs with QL users with lesser disc drives. All QL disc systems use the Sinclair disc standard which ensures compatibility.

What disc drives to use?

Miracle actually offer twin 3.5" disc drives, (NEC mechanisms which are recognised as the best) or you can use other disc drives. You could fit just a single drive or you could use twin 5.25" discs. You could also use the Sandy QMultt unit that combines a 5.25" and a 3.5" in one smart unit.

With QL disc systems and appropriate software you can even read and write to IBM discs, so you can at last bring your work home with you, and take you results back. (We can even supply the same Psion packages for your IBM or compatible so that you do not even have to learn new packages!)

Assess the pros & cons!

If you are thinking of upgrading from microdrives to discs, then you would be well advised to consider the pros (and cons) of buying a Trump Card.

If you are looking for a complete memory and disc expansion, and you have no intention of adding any other expansions at a future date, then the Trump Card is ideal. Even if you now have a disc or RAM expansion then you may find that the extra power of the Trump Card is worth "upgrading" to.

The disadvantages are that if you wish to plug in a ROM expansion board or other interfaces such as an EPROM programmer, or a sound synthesiser, then the address space necessary is already occupied with the RAM card. It also does not offer the variety of QL expansions that, for example, the Sandy SuperQboard mouse version does. (512k RAM, disc and printer ports, Toolkit 2, mouse and POINTER on ROM.)

The Trump Card offers 256k more RAM than any other card, and makes a very powerful and versatile system. It is up to you to decide if its features will be appropriate for your system.

Bits and Pieces

As there are quite a number of pieces of hardware available for the QL that don't merit a full article themselves, we have decided to group a number of them together, and explain just what they are for, and what they are worth!

QL clock battery back-up!

The first is a battery backup for the QL realtime clock. The realtime clock in the QL is the facility exploited by many of the clock programs available for the QL. One of the QL chips counts in seconds, and the number of seconds is then converted to a date. When you turn the machine on, the default date is 1st January 1961. You can set the date and time, but when you turn the machine off again, the chip loses its power, and forgets the date. This is why you (may) have to set the date every time you power up your QL.

There are ways around the problem. One is to leave your machine permanently on as we do, (though that is not to keep the clock going...) or to find some method of keeping the clock set. This unit from TK Computerware gives the chip power while the QL is off, and stops spurious signals from making the clock reset to 1961 when you turn your machine on or off. (There are some other units to do this, and we will be featuring these in future.)

The unit consists of a board, and some circuitry that has to be plugged into the QL circuit board. You may throw your hands up in horror at this point,

Fitting it is not so difficult!

The first thing to do is take the top off the machine, removing the relevant screws specified in the instructions. Once done, you pull back the top, (and take care with the keyboard membranes which attach the keyboard itself to the base,) and find a chip described.

That chip is a custom Sinclair chip, and here the first problem arises. Some of them have two small components linked together over the top of the chip you have to remove, and linked to another chip with a fine wire. Getting the chip out of the socket without disconnecting the wire can be tricky.

Using a small screwdriver you should ease the chip out, and then push the new circuit board in, in its place. This new board incorporates a number of components, and a socket for the chip that you have just removed. This small, but compact circuit board has to plug in in place of just 1 chip.

This is the second problem. The board is a very tight squeeze. You may find that the surrounding components try to stop you plugging the board in. You will do it in the end. You then have to plug the chip in again, again with the problem of not breaking the wire. Finally, you can insert the battery, a lithium unit good for over two years. When it runs out you have to take your QL apart again, and go and get another from your local watch shop, or dealer.

Testing, and possible faults?

Once fitted, it is worth turning on the QL and seeing what happens. If it powers up as normal, you have fitted it without causing problems- if you get beeping, or a coloured screen, then you have done something wrong. (At that point phone TK or us. Remove the board, reinstall the chip as it was in the first place, and try again. If it works, then there is some reason why fitting the clock causes problems, but if not, then you have caused some damage whilst fitting it- ask us then about our guaranteed repair scheme!)

Once all is working, you try to put the top on, and find another problem. The case won't fit. Well, it does not seem to fit. You have to hold it shut quite confidently, and put the screws back in again. You then hope that it all continues to work afterwards... (One common problem is dislodging the keyboard membranes during fitting, so you cannot make all the keys register. You should just ensure the membranes are fitted ok before reassembling.)

To test that everything is ok, you set the clock to the present date using sdate, and turn the QL off. You leave it a while, and the reconnect. If when you type PRINT DATES you get the right date, then the backup is working ok. If not, then try again before phoning.

In practice, fitting the battery back-up is quite easy. (Yes, we realise that you are panicking after reading all that- but you would prefer to know potential problems, rather than just the theory and hype, would you not?)

Convenience vs fitting risks

The advantage is simple. Convenience! Instead of setting the clock every time you start up, you almost never have to set it. (Almost never, because some programs set the clock to zero, and sometimes even the clever circuits to prevent corruption do not prevent spurious signals on start up resetting the clock, or setting it at random.)

If you have Toolkit 2, or a number of other programs, then all files will record the date and time saved, so you can keep track of the latest versions of your program, or do recent backups.

Serial to parallel converters! Joystick conversion leads?

The QL is equipped with two standard serial (RS-232C) interfaces. If you do not already use them, then they are marked SER1 and SER2 on the back of the QL. SER1 is set up for a serial printer, and SER2 is set up to use a modem. (See the introductory copy...)

These are fine if you have a printer with a serial interface—the problem arises when you realise that most printers have a standard parallel interface called centronics. When the QL was new, several companies brought out parallel interfaces to plug into the expansion port. These worked well, but there is always the problem that you cannot then plug in RAM, or a disc interface. The solution was to produce a special lead that converts serial data into parallel data automatically.

There are several suitable for the QL. What you get is a lead to plug into one of the serial ports, (usually ser1 but sometimes ser1 or ser2) that has a small box on the printer end, and fits the centronics connector of centronics printers. That is it. You do not have to adjust your printer drivers, or set your programs to work in special ways.

If the program sends the right codes to the printer with a serial interface then it will work. The only thing to be aware of is that the ser baud rate should be set to 9600. (You don't even need to understand that term, as a QL defaults to that speed—it is the rate of serial transmission, equivalent to 900 to 1000 characters each second.)



It really is as easy as that. There were reviewers in the early days who stated the QL because it did not have a centronics interface—with units such as this what is the problem? We can supply a huge range of printers, and we often get requests for details about serial printers for the QL. We often recommend that the customer gets a printer with a centronics interface, plus a serial to parallel converter. This means that you effectively have both interfaces, and you can use the printer on other QL compatibles that have standard centronics interfaces at a later date, if you should "upgrade".

The QL offers two joystick controller sockets. (They are marked CTRL1 and CTRL2.) The problem is that they don't use the "standard" plug for joysticks, set by Atari. Most joysticks use that standard, because most computers and video games use it. There are dozens of joysticks available, and they offer various different shaped handle grips, number of buttons, and various extras. Choosing one you like is quite hard!

The basic signals sent from a joystick to a computer or video games console are up, down, left, right, and fire. Some joysticks are switch type, and some are analogue. The difference is that a switch joystick just tells the computer that the joystick has been pushed forward, or right, or both, and so on. There are a maximum of eight directions, (N,NE,E,SE,S,SW,W,NW) on a switch joystick. On analogue joysticks the joystick tells the computer by how far it has been pushed (0-255) in each direction, so there are theoretically thousands of directions to move it in.

However, the Atari standard uses the switch joysticks, as does the QL. The QL control sockets will accept all these signals, but not the extra ones necessary for a track ball or mouse which use special signals and require power and an earth, as they use chips.

A trackball is a square box containing a ball, that is attached to a computer via a lead. Some ball surface is above the top, and you move the ball in the direction that you wish to move the cursor. The faster you move the ball, the faster the cursor moves. Very accurate movement is possible making graphics easy. It may have one "fire" button. Nice are nearly the opposite. They are small units on which you rest your hand. Inside, there is a small ball, and as you move the mouse around on the ball, a cursor moves on screen in relation to the mouse. There are often two buttons to trigger actions. They are widely used on new computers using window/icon displays. (eg MAC) There is no way to plug in trackballs or mice without a special interface.

Joysticks plugged into CTRL1 simulate the cursor keys and the space bar. Any joystick in CTRL2 will simulate the function keys. (That also means that if a game requires a 2nd joystick you can use the function keys instead.)

Now to solve that problem. All that is needed is a short lead to convert the QL standard to the Atari standard. (We can put the QL plugs on Atari standard joysticks, but then you cannot use the joystick in a standard joystick port.) These leads are inexpensive, and solve the problem simply and efficiently! It is certainly better than considering just the limited list of QL joysticks.

PROTOCOL CONVERTER

In the introductory copy, in "PROTOCOL CONVERTER", we looked at the different services available, and very briefly examined the hardware and software necessary for making your QL computer communicate with others via the phone.

This month, we will be looking closer at Prestel, the most popular computer database for home and business users in the UK. The service is quite cheap and easy to use, and is very popular among domestic computer users.

There is also a review of the Tandata QCOM system in "SYSTEM VARIABLES", and in the review we have tried to relate the features that it offers to general communications needs. There is even a review of an innovative new terminal emulator by Qualsoft which will work with all the popular modems on the QL. Now to our special Prestel feature...

Subscribe to Prestel Microcomputing

Prestel has an area called Prestel Microcomputing, otherwise known as Micronet 800, that is specially for computer users. (If you would see details then we can arrange for some to be sent to you. See also our new modem try before you buy scheme.)

To access Micronet, you have to become a subscriber. This costs £66 a quarter for personal users, or £112 for your business. (Don't mention business...) This includes the Prestel subscription for one year too, and allows access to all the interesting areas of Prestel.

Of course, you want to know what you can get from Micronet, so we shall go through some of the features. Almost certainly, the first thing to do is go and have a browse around the system by reading the tutorial for new users. It is an interactive, educational course - you get a special prize at the end!

Now to explore and find out more!

Once you are over the basics, and you know what you are doing, and basically what to do if you get lost, you may explore... There are lots of areas to have a look at, most of which you can access by name now. Some interesting ones are *M, which takes you to the main Micronet menu, *M NEWS, which takes you to the main micronet news index, *QNET2 that (at the moment is the clubspot QL database- we have news of that...) *GALLERY that is the users own editing area, (we have 20 screens

including some news, reviews, comment, and details about subscribing, *D88 which is an area for Z88 users, *ST for the Atari ST section, *sixteen which is another for ST users, *Amiga for the Commodore Amiga area, *swap for the sales and wants section. There are many more, and it just means that taking new routes from the main menus, and noting down the page number/name for future reference. Personally, I go to some areas each day out of habit.

Lots of news, always up to date..

Do you buy a weekly magazine such as Popular Computing Weekly? Yes? Well if you buy it for the news, then you may well find that Micronet makes a good alternative. You don't just get weekly news, you get daily news. There are usually about three items of news each day, and they cover a whole range of topics from the latest products, to news of company takeovers, legal cases involving computers, and new events.

There are also special reports when there are computer shows on, including the ZX Microfairs, and all the annual shows such as the Personal Computer World (oops, now renamed personal computer show,) and the Which show. There are also reports from abroad, including the American and German computer shows where new products are often launched. You get also get good knowledge of many more areas that you would from just buying a specialist magazine, and your rooms don't fill up with old issues of all the magazines.

Specialist databases and variety?

Aswell as all the dedicated news areas there are all the machine databases, from the QL, the IBM and compatibles, the Atari ST, the Commodore Amiga, the Spectrum, Commodore 64, and many more. Each database has its own format, and you are able to browse around at will.

On these databases, some of which are run by professionals, and some by amateurs, you will find news, letters, problems asked and some answered, lists of other users and contacts, some programs, (usually free) special offers, and lots more. A new world!

Serious services and business use

Other things that might interest you on Prestel are all the other serious services available. You can access biznet, an area specially designed for business, with tax help, information on government grants and schemes, contact with other users, and trade directories, and even free advice.

There are also a large number of other services that can help business, many lost among over 350 thousand pages.

Book your entertainment online

As Prestel was first envisaged as a large on-line database for travel agents, there are huge numbers of travel agents who advertise. You can order brochures and read information. Other similar services are in the "what's on" section, where theatres, cinemas, local authorities, and many other organisations offer details about what is available, and try to encourage you to book seats or tickets by credit card, or order a brochure.

Interactive operation at all times

The fact that you can reply is the most important advantage of Prestel over something like Teletext, even if you ignore the huge difference in the quantity and quality of information available. It means that you can not only see something you want, or read a letter from someone, or see answers, you can order it, or reply to them.

This is done by two means. You can either fill in a response frame, or you can send a mailbox (mbx) to the person or organisation concerned. The first, response frames, are provided by organisations who expect a reply—they are like electronic forms, and you can type and edit information, and when you finish, you are given the option of sending it, or scrapping it. A mailbox is a form of electronic mail and allows you to write letters and comments either on-line, or (if your software allows it off-line) transmit ones you wrote in a suitable form while you were not connected.

Recent alterations to the system even allow you to do basic editing, and it will word wrap (prevent text splitting over the end of the line) your text. You identify the person to whom you wish to send a message by their mbx no (mine is 219998590) and your message will be marked automatically when they receive it. (That should be almost instantly, although the system sometimes has problems that delay things.)

Telex and Telecom Gold available

Have you ever needed to contact someone by Telex, but not having a machine been unable to do so. Maybe someone has asked to contact you by telex and could not? Well, Prestel offers an easy, and inexpensive solution. The telex number that we quote is actually a Prestel telex contact. What you do is go to the telex index (*telex) and select where you wish to send it. (You are charged a small fee from 50p to about £3 for some foreign countries.) You then type your note, or transmit one you prepared earlier, and it is sent by Prestel. It is marked with details of how to reply to it. You are

even informed of whether it arrived ok and when. The person receiving it just gets a note to say please reply to this number, but mark it mbx no You receive telexes just as normal—you are told when one has arrived, and it is broken into pages by the system. There is no charge for any received.

You can also access Telecom Gold through Prestel, and if you really need the services that offers (we will look at them in a future issue) then you can do so without costly joining fees, or any particular commitment.

What do all these features cost?

We have already outlined the charges for a subscription to Prestel. It is always better to subscribe to Prestel Microcomputing too (included in the fee we quote) as it is the most useful and interesting area for micro owners. Most pages are free but there are some that have a cost attached—a few pence unless the information is worth a lot.

So apart from those costs, what else do you pay for? Well, there is your telephone bill of course. You access Prestel like any other bulletin board by dialling the number, and logging-on with your unique, confidential codeno. (You must not let anyone else know what it is as they could log-on and run up a large bill at your expense.)

Fortunately access to a Prestel system is done via local access points. What this means is that although the computer which is servicing your call may be 200 miles away, all you pay is the local call charge. If you access Prestel after 6pm, and before 8am, or at the weekend, (it is open 24 hours a day 7 days a week) you can use the system for over an hour for little more than 50p at local cheap rate. The service is addictive, and so you should be careful of your phone calls, or you could run up a very large phone bill, even at the local cheap rate.

There is one other cost. If you use the service during business hours, (in the case of Prestel 8am to 6pm) then you have to pay a surcharge, 6p/minute at present. (I think—) That makes it quite costly. (That does not affect your phone bill which could also soar.)

You receive your bill from Prestel at quarterly intervals—it lists what you done (eg bought software) on the bill. Your Prestel bills are separate to your phone bills, and they list what you have spent, and when. Of course, if you have booked things by credit card, then that bill arrives later...

If you are interested in using Prestel but you would really like to see it before you make such an investment, then our "try before you buy" may be a help—phone to discuss it if you like!

MANUAL RESPONSE

PSION PRINTER DRIVERS

Since we started offering the postal and telephone helpline, by far the most common problem that we have to help solve has been printer drivers. Even though the subject has been dealt with elsewhere in the past, we think that it is well worth devoting a large amount of the space in MANUAL RESPONSE this month to this single topic.

Of course, it could save you money. We offer a custom printer driver service, but as it can take hours, we have to charge a £5.00 fee. However, we will give you your money back if you come up with a solution before us, or if we cannot produce one reasonable quickly. We cannot be fairer than that can we?

Getting Started Properly

To save possible problems with some commands that are used in the supplied `install_bas` program, we suggest that you reset the QL before loading the program. Locate a back-up of your Quill cartridge and check that it has a file called `install_bas` on it. There should also be a matching file called `install_dat`. If neither of these are present then check Abacus and Archive.

To run the program from microdrive type `"lrun mdvi_install_bas"`. If you are using a Thor or disc drives, then you will need to type `flp_use mdv` and then `lrun` the above command, as unless your copy has been changed the program only searches the microdrive for the `install_dat` file it needs to operate.

When the program is loaded, you are asked which microdrive you wish to install the file on. You normally put the file on the same disc/microdrive as Quill or whatever package you are setting it up for. (It is possible to install it on a data medium, but you will have to alter the configuration aswell, with `config_bas` to do that.)

Next press ENTER to set up for the serial ports, or a serial to parallel converter, and SPACE for a parallel interface such as the Superboard's.

This article was first written as a letter to a gentleman who has had a very tricky problem with a Smith Corona daisywheel printer. The main problem is that the manual is of no help as it mentions details but does not say what switches to alter, or what they are set to at present...

If you have set up your printer driver for an odd printer, please send it in!

Driver Name: Smith Corona
When you install the printer from the `install_bas` program, it creates a file called `printer_dat` on the medium chosen, (that is either microdrive or disk). If you copy a version of that file set up for continuous paper to `smithcc_dat`, to stand for Smith Corona continuous (paper) data, and you then install another version of the data set up for single sheets, then copy that version to `smithcs_dat` to stand for Smith Corona single (sheets of paper) data, then you can swap between the two from within Quill.

In Quill, having set up the two files on your Quill disc, you can type F3 O F B (Commands, other, files, backup) then type the name of the drive you want to use, eg `mdvi.smithcs_dat` and then the name of the file you want to back it up as, `mdvi_printer_dat`. (Both these cases presume that you have set Quill up to look at `mdvi_` for the printer driver— you could equally well have set it up to look at `flp1_`.) Now when you go to print out, you have the right choice of printer driver for the paper you are using— you can swap between the two as many times as you like from within Quill.

Ports:
`ser1` (It refers to the port on the QL)
If you use a serial to parallel then you can also use `ser2`. When using par printers set the port to `par_`.

Baud rate:
Match to printer, or set to 9600 if you are using a ser to par converter. Common rates if in doubt are 9600, 1200, and 300 baud. If you are using the wrong speed then you will get garbled text from the printer.

Parity:
Match to printer, if in doubt set none
Again, if it is wrong your text will be garbled. Your manual will explain.

Lines/Page:
66 for computer fanfold listing paper, or 78 for A4 fanfold paper. If you are using single sheets, then allow 6 lines at the top as unuseable, as the paper feeds to 1 inch from the top on most printers. Allow up to 6 at the bottom to avoid getting paper out signal from the printer, or the paper slip, if you are using single sheets. The thing is to remember that your printer should be working at 6/10 inch, although you can set it to 8/10 inch too.

Characters/Line:
Usually 80, 132 if using condensed.

Continuous Forms:

Set to YES for fanfold, NO for single sheets. On no, you will be asked to put a new piece of paper in, and press ENTER at the bottom of every page. If you are using an auto sheet feeder, say YES. If you don't set it right, your printer will report out of paper in most cases.

There is no reason why you can't have one printer driver set up for single sheets, and another for forms using the easy method described at the start. We know that a number of people have been using the install_bas EVERY time they wanted to change paper.

End of Line code:

Normally CR,LF

CR is carriage return, LF is line-feed. Type the following to test whether your printer is set up for 1 or 2 codes—daisywheels are usually set up for 1 code, and dot matrix for 2.

```
OPEN#3,port (usually port is ser1)
PRINT#3;"Line 1";chr$(13);
PRINT#3;" Line 2"
CLOSE#3
```

If you get 1 line rather than 2 lines, then your printer is set up for 2 codes, and the end of line code is CR,LF. If you get 2 lines, then your printer is set up for 1 code, and you should see if you can have it set up for 2 codes instead. If not, (produces 2 lines) set end of line code to CR. If your printer uses 1 code then you should for example type "open#3,ser1" from SuperBASIC to get listings of basic programs and print results.

Preamble Code:

This is sent before any text— you may wish to clear the print buffer, or turn NLQ on. Consult your manual. If you are using the FX80 driver as defined on the install_bas program, then it may include a reset printer instruction— if you have front panel selection of founts or NLQ, then all features will be reset to defaults by this preamble. Consult your manual. If in doubt just leave a CRN code in.

Postamble Code:

This is sent after all the text printed, each time you use the PRINT command from Quill, for example. You may wish to send CR,LF to print anything outstanding in the printer's buffer for example. If not, you may have your page number from Quill being printed on the top of the next document. You may also wish to turn NLQ off again. Consult your manual.

Bold On:

If your printer has a bold on command, then type that. If not, DEF will print the text twice, to get a bold effect. Set NONE if that does not look right.

Bold Off: If your printer has a bold command, then it must also have a bold

off command. If you used DEF, or NONE, then type the same as for Bold On.

Underline On:

If your printer has an underline command, then type that. DEF will print some underscores under the text by doing another pass of the paper.

Underline Off:

If your printer has an underline command, then it should (!) have an underline off command. I know someone who had a foreign Star printer that would not turn underline off again. If you used DEF or NONE for turning underline on, type the same.

Subscript On:

Your printer may do subscripts. These are characters typed a little below the others, and are used for scientific text. If it does not, you can get away with doing half a line feed down, if your printer can.

Subscript Off:

Use the opposite command to subscript on if there is one— if you did half a line feed for a subscript, you printer MUST BE ABLE to do backwards linefeed.

Superscript On:

The opposite of a subscript. Do half a backwards linefeed if your printer can do that, and has no suitable command.

Superscript Off:

Use the subscript off command, or do half a normal linefeed if you took that option.

Translates and Printers

Translates:

Up to 10 available— use them to print characters on the printer that have different codes to the ones on the QL. For example, a pound sign on the QL is code 96, but on a printer a pound sign is often code 35. If you just leave the pound sign without a translate then you may get a single apostrophe.

For translates, you type the character that you want to print on the printer, followed by the codes necessary to produce that character on the printer.

For example, '£', '#' will often produce a £ sign, which has to be sent to the printer as a # because that is the correct code in the English character set on an Epson printer. The single quotes are essential otherwise the program will not accept the character as being valid. The other point to note is that codes are in decimal.

Configuring Psion Easel

If you want advice on setting up Easel then that is somewhat more difficult— we will be printing something on that next issue we hope— so despair not!

Finest Hardcopy

```

proc add_record
cls
let ok$="y"
cleardetails
while ok$="y"
append
enter_record
if ok$="y"
update
endif
confirm;"Add Another Record"
if ok$="y"
cleardetails
endif
enduhile
endproc
proc bye
sub_header;"Program Now Terminated"
endproc
proc check_label
if address$="" :do_line;" " : endif
if district$="" :do_line;" " : endif
if town$="" :do_line;" " : endif
if county$="" :do_line;" " : endif
if country$="ENGLAND" :do_line;" " : end
if
if postcode$="" :do_line;" " : endif
endproc
proc check_record
let ok$="y"
let title$=upper(title$)
let firstame$=upper(firstame$)
let firstame$=""
endif
let surname$=upper(surname$)
if surname$="" or surname$=""
let ok$="n"
endif
let address$=upper(address$)
let district$=upper(district$)
let town$=upper(town$)
if town$=""
let ok$="n"
endif
let county$=upper(county$)
if country$=""
if country$(1)=" "
let country$="england"
endif
else
let country$="england"
endif
let country$=upper(country$)
let postcode$=upper(postcode$)
let telephone$=upper(telephone$)
let note$=upper(note$)
sprnt
endproc
proc choose_option$
let option$=option$+chr(27)
let key$="z"
while not instr(option$,key$)
let key$=lower(getkey())
enduhile
endproc
proc cleardetails
let title$=""
let firstame$=""
let surname$=""
let address$=""
let district$=""
let town$=""
let county$=""
let telephone$=""
let note$=""
endproc
proc confirm;text$
print at 17,0;blank$
print at 17,margin;text$+"? (y/n) "
choose;"yn"
let ok$=key$
print at 17,0;blank$
endproc
proc create_file
error ok
kill dev2$+"personal_dbf"
create dev2$+"personal_dbf" logical "P
ersonal Data"
title$
firstame$
surname$
address$
district$
town$
county$
country$
postcode$
telephone$
note$
endcreate
endproc
proc delete_record
cls
display
let ok$="y"
while ok$="y"
enter_match
match_record
if ok$="y"
confirm;"Delete This Record"
if ok$="y"
delete
endif
else
message;"No Match Found"
endif
confirm;"Delete Another Record"
if ok$="y"
cleardetails
sprnt
endif
enduhile
endproc
proc del_blank_rec
locate ""
while surname$="" and not eof()
delete
enduhile
endproc
proc do_all_labels
first
while not eof()
do_label
check_label
next
enduhile
endproc
proc do_alter
error ok

```

```

alter
endproc
proc do_error
sub_header;"A Fatal Error Has Occurred"
print "Error Code ";errnum()
print "Please Examine Your Manual For
Details"
endproc
proc do_label
do_line;" "
do_line;title$+ " "+firstname$()+" "+s
urnames$
do_line;address$
do_line;district$
do_line;town$
do_line;county$
if country$=""ENGLAND"
do_line;country$
endif
do_line;postcode$
do_line;" "
endproc
proc do_line;text$
if text$=""
lprint text$
endif
endproc
proc do_mail_merge
header
let ok$="y"
while ok$="y"
sub_header;"Merging Document From "+de
v2$
error merge_letter
if not errnum()
cls
first
display
while not eof()
sprint
confirm;"Print a letter"
if ok$="y"
letter
let ok$="n"
endif
next
endwhile
else
confirm;"No Suitable Document Found- T
ry Again"
endif
endwhile
endproc
proc edit_record
cls
display
let ok$="y"
while ok$="y"
enter_match
match_record
if ok$="y"
enter_record
else
message;"No match found"
endif
confirm;"Edit Another Record"
if ok$="y"
cleardetails
sprint
endif
endwhile
endproc
proc enter_match
let aname$=""
while aname$="" : input at 3,15;aname$
endwhile : let aname$=upper(aname$)

```

```

let atoun$=""
while atoun$="" : input at 6,15;atoun$
endwhile : let atoun$=upper(atoun$)
endproc
proc enter_record
let key$="z"
while key$<>"y"
do_alter
if errnum()=27
delete
else
check_record
if ok$="y"
message;"
confirm;"Is This Record Correct"
else
message;"Not Complete- Vital Fields Mi
ssing"
endif
endif
endwhile
endproc
proc header
cls
print headers$
print
endproc
proc init_files
header
sub_header;"Opening File"
open dev2$+"personal_dbf" logical "Per
sonal Data"
sub_header;"Ordering File for Speed"
order surname$a
endproc
proc init_vars
let blank$=rept(" ",64)
let dev1$="mdv1_"
let dev2$="mdv2_"
let margin=10
let margin$=rept(" ",margin)
let header$=margin$+"Personal Database
Manager, ©1988 SUBSoft"
endproc
proc letter
endproc
proc main_choose
choose;"123670"
if key$="1":add_record; endif
if key$="2":edit_record; endif
if key$="3":delete_record; endif
if key$="6":do_all_labels; endif
if key$="7":do_mail_merge; endif
endproc
proc main_menu
header
sub_header;"Main Menu"
print margin$+"1] Add Record"
print margin$+"2] Edit Record"
print margin$+"3] Delete Record"
print
print margin$+"6] Do Envelopes"
print margin$+"7] Do Mailmerge"
print
print margin$+"0] Quit"
print
print
print
print margin$+"Records In Files ";coun
t()
print at 13,margin; " Select Option "
;
endproc
proc match_record
locate aname$
let ok$="z"
while ok$=upper(surname$) and ok$<>

```



```

"y" and not eof()
if atoun$(1)="?" or atoun%=upper<toun%
)
sprint
confirm;"Is this the Person"
endif
if ok%="n"
next
endif
enduhile
endproc
proc merge_letter
merge dev2%+"doletter_prg"
endproc
proc message;text%
print at 15,0;blank%
print at 15,0;text%
endproc
proc ok
endproc
proc prompt;text%;option%
print at 17,0;blank%
print at 17,margin;text%
choose;option%
print at 17,0;blank%
endproc
proc secure_file
header
sub_header;"Now Closing File"
close
sub_header;"Place Backup Media In "+de
v1%
wait_for_key
sub_header;"Now Making Back-Up"
kill dev1%+"personal_dbf"
backup dev2%+"personal_dbf" as dev1%+
"personal_dbf"
endproc
proc start
mode 0,6
init_vars
error init_files
if errnum=100
create_file
endif
if not errnum=0
let key%="z"
while key%<>"0"
del_blank_rec
main_menu
error main_choose
endwhile
secure_file
bye
else
do_error
endif
endproc
proc sub_header;text%
print at 2,0;blank%
print at 2,0;text%
print
endproc
proc wait_for_key
message;margin%+"Press SPACE to contin
ue"
choose;" "
message;" "
endproc

```

The program above should be typed into Archive, & saved as "personal". Run it from Archive by typing run "personal". It is presently set up for microdrive but can easily be changed for disc by changing dev1% and dev2% in init_vars. The program itself sets up a database.

```

100 dev1%="mdv2_"
110 OPEN#3,con
120 PAPER#3,2: INK#3,7: BORDER#3,1,7:
CLS#3
130 REPEAT readname: INPUT#3;"Filename
? [_LIS] ";file%: IF file%>"": EXIT re
adname
150 OPEN_IN#4,file%&"_LIS"
160 OPEN_NEU#5,dev%&"doletter_PRC"
170 PRINT#5;"proc doletter"
180 REPEAT process
190 IF EOF(#4): EXIT process
200 INPUT#4;txt%
210 txt%=txt%(1 TO LEN<txt%-1)
220 pos="0" INSTR txt%
230 IF pos THEN
240 PRINT#5;"if ";txt%(pos+1 TO pos+<'
?' INSTR txt%(pos+1 TO LEN<txt%>>);>
""
250 PRINT#5;"doline;"';txt%(1 TO po
s-1);'+";
260 PRINT#5;txt%(pos+1 TO LEN<txt%>)
270 PRINT#5;"endif"
280 ELSE
290 PRINT#5;"doline;"';txt%;"'
300 END IF
310 END REPEAT process
320 PRINT#5;"endproc"
330 CLOSE#3
340 CLOSE#4
350 CLOSE#5

```

Processing LIS documents.

The basic program above turns a Quill _lis file into an Archive procedure. You print a document to a file on your database microdrive/disc, (using no printer driver—take the microdrive or disc in drive one) and then run the basic program above. Type in the name of the _lis file, (call it letter everytime for convenience) and you will then have an Archive program.

In Archive, you then load the program, and select the mailmerge option. When you do, the program tries to merge the program you created and print out your letters. You get the option to select which letters you want to print, and which ones you want to skip. You can also build in more selection options.

Structure eases add-ons!

Some of the programming looks unusual, or long-winded, but it is written to allow expansion, and ease of use. Code can be added easily, and can make use of existing code without conflicts. This program is the start of a series. We will be printing routines in future to allow you to add features to this simple program, to customise it to make it suitable for business mailing lists, club membership lists and your collections. We will also be printing a number of useful routines that some of you have asked us to write— for example, paged output, columnised record printing and report modules.

Good luck! If you have any problems, then phone Richard for help with it.

Investigation

What is in the spotlight? The QL and the OPD/Tonto. We focus on two healthy relatives of the QL we love!

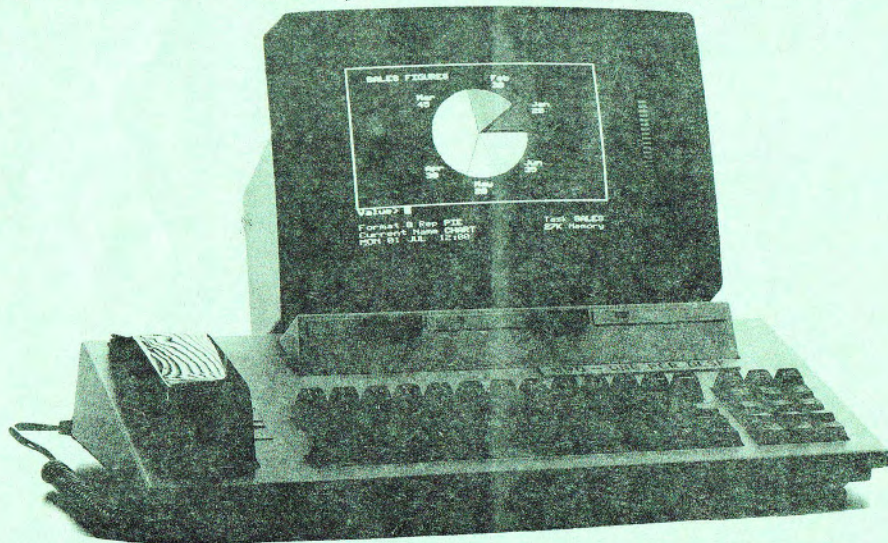
The QL was launched in January 1984. Even before launch, there were rumours that Sinclair was working with other companies on a similar machine. By the autumn of 1984, ICL had revealed the result of their link up with Sinclair. That machine was the One Per Desk, and it is still available today, both from ICL, and from BT Merlin, the British Telecom computing division, as Tonto.

The OPD had first been mentioned in 1982, when Sinclair issued a press release stating that it was to develop an ultra low-cost integrated terminal and digital telephone workstation, employing Sinclair's flat-screen technology, and Sinclair BASIC. It was first named the "One Per Desk IT work station" but launched simply as the One Per Desk. The flat screen had been removed from the design, but it was definitely derived from the Sinclair QL, and used much of the QL system.

Basically the ICL OPD uses the same basic technology as the QL, with the important addition of a telephone handset, speech synthesiser, and a modem, connected to two phone lines, and under the control of 64k of ICL's own operating system on ROM. There are also connections for extra peripherals and a ROM pack to take up to four ROM cartridges, optionally with the PSION Exchange system on a ROM cartridge.

The OPD is powered from the monitor it uses, and you have the choice of mono or colour units, but at present there seems to be some doubt as to whether the colour units are available - I have spoken to an OPD product manager at Merlin who tells me that a number of the colour monitors have recently blown up, so they are now unavailable.

One important difference between the two machines is that the OPD and Tonto



Although looking at the machine from the outside, it is hard to imagine any links between the QL and the OPD, on closer examination of the machine, it is obvious that they are related. Both have microdrives, both have the same graphics resolution, 85 column text, and on internal examination, many of the same chips. The circuit board is different from that of the QL, but the similarities are more significant.

both run an operating system designed exclusively for them, rather than QDOS as used on the QL. This means that only software using very simple BASIC, or the Archive programming language, identical on all versions of Archive, can be transferred and run on both machines. (The optional Exchange suite contains improved versions of Quill, Abacus, Archive, and Easel - they are similar to those used on the Thor.)

File transfer and more... The Software available...

One other problem with transferring software between the two machines is that ICL have seen fit to use a new microdrive format, incompatible with the QL, but supposedly more reliable.

Fortunately, there is a program now available from Dave Walker, an ICL employee, that bridges the gap, and implements a new device on the QL, called OPD. It can be used as MDV, but reads and writes in OPD format. For example, `dir OPD1_` gets the directory of an OPD cartridge in microdrive 1, and `save OPD1_filename_BAS` saves a program of that name on a cartridge in microdrive 1. You can even copy files—`copy mdv1_filename to opd2_filename` or vice versa. OPD users ask for info!

In some respects, the OPD operating system is more suitable for the common uses of the OPD, when compared to QDOS. However, when one considers the difference between QDOS with QRAM, or one of the other multi-tasking systems such as Taskmaster or Swopper, for example, and the OPD system, it seems that the OPD operating system is very inefficient.

We are trying to see if it is possible to implement QDOS on them, on a ROM cartridge, as the common QL hardware should be handled the same on both.

The OPD does not truly multi-task. It operates like one of the early multi-taskers for the QL in that any program not in use is suspended, that is, held in a state like suspended animation until it again become the present job. The menu system is rather similar to the menu driven features of Taskmaster and also supports calculator, memory managements, and housekeeping tasks.

Unlike the QL, the OPD only allows programs (except Easel) to display text, and redraws the screen display character by character, using s-l-o-w routines which make the machine appear to be a lot less efficient than it is. Fortunately, Creative Codeworks claim to be working on a version for the OPD and if it is as good as that for the QL, then it should meet with success.

As the operating system is completely different to that of the QL, no QL programs will run on the machine, and from our investigations, it is almost impossible to find out the technical specifications, and how to set up jobs in the machine. This means that it is at present virtually impossible to develop any independent OPD software.

Metacomco still offer two development systems for the machines, but we were rather shocked to read that each costs over £1200. This includes an OPD on extended loan—but the development system itself runs on an IBM PC.

So what software is available for the OPD, and how does it compare with that for the QL, I hear you asking. Well in comparison, the OPD is still poorly supported with commercial software. (A situation we hope to change a little.) We have recently been contacting all those companies who claim to offer hardware or software for the machine, and we may be able to offer users who have the machine the same kind of service, discounts and user support.

The standard machine is supplied with a version of SuperBASIC, (but without any of the windows or graphics that are available on the QL,) a calculator and housekeeping tasks, including file manager, telephone index linked to the autodial feature of the modem, and the utilities necessary to set up the auto answer feature to enable the OPD to answer incoming calls with its voice synthesiser. (Even when you are using the other voice line simultaneously.)

Most users will also opt for the most important software available for the machine, that is the Psion Exchange software. It is supplied on ROM, and as such does not take up any RAM, and allows you to have several copies of each program running on the machine, in a similar way to Taskmaster. Psion Exchange, for anyone who has missed the information on the Thor in the introductory copy, is an upgraded version of the Psion packages supplied on the QL, with each package being linked together by a manager program. The packages are supposed to be more powerful than those on the QL, but in practise, they are almost identical. One helpful point about Exchange is that programs and Data are in theory compatible between all versions—there is also an IBM PC version available.

The important point to note about the Exchange suit is that it is optional. It costs up to £195 extra, that is on top of the usual £1100 for a mono OPD, or £1500 for a colour unit, all prices +VAT of course! Other options are ROM cartridges for comms and emulations.

Most other software is supplied on microdrive, as discs are a relatively new development from PCML for the machine, although most serious users have already seen their advantage. Other programs that are available include a graphics program, and some other utilities, various applications written for Archive, and some accounts templates suitable for Abacus.

Since the PCML disc drive package that is badged as "Teledrive" by ICL and Merlin also includes a CP/M emulator, a number of companies are offering CP/M programs for the system, but there is less available than one would expect, and it is no less expensive.

More Software & Hardware!

SuperBASIC is supplied on microdrive rather than being an integral part of the operating system, as it is on the QL. It is quite large, and it does not leave you with much room for other programs, or data, if you use it.

As most of the really useful features of the QLS display are not available from SuperBASIC, the programs that are available in SuperBASIC are going to be rather boring compared to those for the QL. They are also rather slow, as the SuperBASIC interpreter is running in RAM, which makes it run less fast. There apparently used to be a (poor) SuperBASIC compiler available from Computer One for the machine, but as that company is now in liquidation, we are having trouble finding out how to get this and other OPD products.

If anyone has any software that they have written for the OPD/Tonto, and they would be interested in marketing it, or offering it to other users, via our public domain software, then we will be glad to hear from you. (We can also offer information on the BASIC available on the OPD to anyone who thinks that it might be interesting to convert their QL programs to a form that will run under OPD SuperBASIC.)

The range of hardware available for the OPD is poor. Apart from the 2 or 4 slot ROM cartridge expansion unit, and the teledrive, there are virtually no hardware expansions available. The OPD can only be expanded to 256k RAM at present, although considerably more ROM (we are not sure how much exactly) can be linked into the basic system.

The Teledrive offers the user twin 3.5" disc drives, and the CP/M system. These drives are known as A: and B:, as opposed to the L: and R: of the microdrives. They store 720k, the same as the QL, and are housed in a similar case. It looks as though it should house 4 drives, but apparently the case contains controller circuitry.

prevents the user from accessing the system while locked. That seems a good idea, but the nosy thief can always swlpe the discs or mdvs anyway...

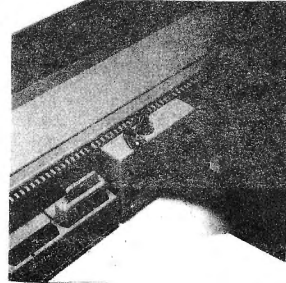
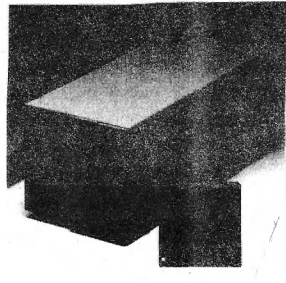
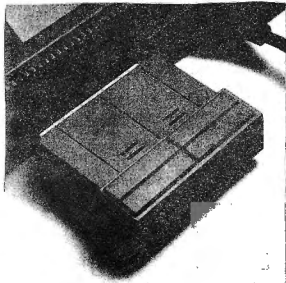
Having painted a quite dismal view of support for the machines, you are probably wondering why I suggested that the machines are still alive and well. The reason is that unlike the QL, or any of its compatible clones, the OPD and Tonto are both still rolling (riding?) off the production lines at over 250 each month, ICL tell me. That is a modest rate, but when they sell at a minimum of £1100+VAT, it obviously means that ICL have got a market of users who are keen to make the most of their capital investment. They still appear to be very popular among their users, and they have earnt themselves a place on many busy desks.

There is presently a support service for the machines so the user can phone the girls up, and discuss problems. They have not yet had the answer to any of our questions, but maybe asking for an Easel printer driver for an Epson printer was a bit hard... New machines have 1 year warranty. Service contracts are available, so if your machine breaks down, an engineer will come and fix it personally- cost £275.

The only printer, apparently, that is supported, is the OKI thermal colour printer available for £325+VAT. There are a number of other dealers selling specially "configured" printers, (those with serial interfaces...) and if you are looking for one, then we too can supply appropriate printers!

Nobody we spoke to actually admitted to developing software for the machine at present, but we are told that there is a constant source of new software. We would like to think there will be!

After all this, the machine is still an unbeatable product- there are no other computer systems that will do what the OPD/Tonto can, and it offers a complete package for the executive. It really is a "One Per Desk" system.



There is also a keyboard lock unit from PCML badged by ICL that simply prevents the user from accessing the system while locked. That seems a good idea, but the nosy thief can always swlpe the discs or mdvs anyway... If anyone has an unwanted OPD, let me know- I want one on my desk too, now.

MOVING TARGET!

A LITTLE COMPETITION NEVER GOES AMISS. DON'T MISS THIS!

This month, we have looked in the stock box, and pulled out one of the programs that we reviewed this month. Yes, if you win our little competition this month, then we will send you *SPEEDSCREEN!* (If you have already bought a copy, do not despair, because we will let you choose something else of the same value for your QL!)

In view of our increasingly interactive way of running this mag, we have organised a competition that will judge itself from the entries received... That explanation has no doubt confused many of you, and so here is a more straight forward list of rules.

We want to know what you think about your QL, what you want to see developed for your QL, and what you use it for at present... All you have to do to enter, is put the following features of the QL, in order of priority! The most popular order selected will be judged to be the correct answer. Somebody who selects what proves to be the correct answer will be picked at random, and will be the winner. We will publish the winner's name and county in issue 3 of the magazine. We will contact the winner directly.

- a) Large amount of hardware and software for many applications.
- b) Good value basic computer with inexpensive upgrades available.
- c) Suite of competent business packages supplied as standard.
- d) Multi tasking ability, otherwise unavailable in the price range.
- e) Commercial support, with continued developments in progress.

No doubt some of you will disagree with our selection of features, but we had to restrict the list to five general areas to be practical.

If there is no clear winner, then we will judge on 3 top features. The Editor's decision is final! Please send your entries to **MOVING TARGET**, at our normal address. We would also like to hear from you about what you would most like to see developed in the future for the QL, and compatibles. We may award a prize for the best idea! If you have ideas for future competitions, then please let us know!

REPLY WITHIN A MONTH TO ENTER!

BENEFITS IN STORE

THE SPECIAL DEALS FOR READERS THAT WE HAVE ARRANGED

We have decided that in view of the large number of products that we can now supply, this page will not just list the offers that we have this month, but rather highlight special promotion products, or particularly good offers that we have added this month to our regular price list, a copy of which you should have received with this issue. If not, then give us a ring, and embarrass us over the oversight. The prices are all subject to constant review, so please phone to confirm the latest prices...

This month, we can offer a number of the items reviewed this issue, at special prices to members only. We have them in stock now, so there are no problems with lengthy availability either!

Speedscreen is on offer on disc or microdrive at £18.00, or on a ROM to plug into the cartridge port, at only £27.00! *Flashback* is also available on disc or microdrive at £22.50. The Qualsoft "*QL Terminal*" package is available, again on disc or microdrive, at £28.00, or bundled with the Tandata GCOM modem package, for £100.00, for those of you who anticipate using our bulletin board, or would like to get into electronic mail in a professional way, without it costing an arm and a leg. Phone us to see what we have arranged on the new desktop publisher from Sector Software, "*Page Designer 2*" which will be available by the time you read this, in an updated version. We also have an offer on the TK Computerware battery backup for the QL's realtime clock, to save all the hassle of setting it!

At the time of writing, the prices on lots of the hardware and software that we can offer to you, were being revised, so we have refrained from mentioning some of the newest offers on QL products. Why not browse through the price list, and when you see something that you are interested in, give us a ring and ask us to quote the latest price on it, or give you some more information about it. We will offer the best price we can!

Remember, although we are QL specialists, we can supply you with hardware and software for other machines, computer and office supplies, some computer books, and individual attention...

SORRY CASH WITH ORDER ONLY

READER EXCHANGE.

A CHANCE FOR YOU TO ADVERTISE YOUR SALES AND WANTS.

For the terms and conditions related to advertising on this page, you should refer to your introductory copy of this magazine. It was designed to give you all the information about features, so we would have more space for the interesting reading you want.

So far, we have not received any input to **READER EXCHANGE** at all. We will let it run for a while, but if there is no interest, then it will be dropped in favour of something else. One option is a regular adventure column, in conjunction with the **QL Adventure Forum**. That is a regular magazine on a microdrive cartridge for QL users interested in adventures, and features reviews, news, and comment, as well as hints and tips on the latest adventures. For more information, contact Richard Alexander, at Cwm Gwenn Hall, Pencader, Dyfed, Cymru, SA39 9HA. He is not commercial, so please send him an S.A.E. if you want more details. There is also **QL Forum** available, another magazine on microdrive, but more general interest in nature. That is available from Ian Bruntlett, 25, The Broadway, High Barnes, Sunderland, SR4 8LP. Again, as Ian is a student, please send an S.A.E. for more details. We have no direct connection with either of these publications. We will be pleased to mention anybody doing something for the QL here.

Use this section for QL chatter!

Remember, your correspondence in this section on QL matters will be welcomed. If you want to meet people in your area, or you want to pass on some hints and tips, (up to 50 words max) then write in. The future of this page is in your hands today!

Remember, too, that if you have any QL peripherals that you no longer use, or you are looking for something obscure, then let us know, and maybe someone will get in touch with you. Just to remind anyone who might have thought of it, we will not allow any adverts for pirated software, or swapping copies of games.

We would be particularly interested in getting hold of the **GST 68k OS**, (which GST don't have) and the **QUEST CPM 68k**. We have been trying to get these for a long time! If we could borrow or buy either of these items for historical analysis, then we could let everyone know just what they offered the QL user at launch.

PLEASE REMEMBER, ADDRESS YOUR ADVERTS TO **READER EXCHANGE**, PO BOX 3, SHILDON, DL4 2LW. It should appear in the next issue.

on record!

For some reason despite lots of people expressing an interest in coming onto this page with their opinions, we have got to this stage without a big name. However, the person we have spoken to this month was just as important to the QL market—a new user with very little experience of computing. If the QL market is to prosper, then it must accept that many newer users are not "enthusiasts" so much as enthusiastic.

We have correspondence from all round the world just saying "keep it simple—don't be exclusive!" It seems that the introductory copy which we intended put together to be a helpful starter for the less experienced, as well as an interesting read for those "experts" has gone down quite well, although it has been criticised for not having any complicated "nitty gritty" included!

The quotes at the end are collected from the correspondence that we have already received and processed. It seems that a great many of you are new to the QL, and you are looking to us to explain the basics, and get you set up with a complete working system.

>"Why did you buy a QL?"

"Because it was offered cheap from somebody who needed an IBM system, and I thought that it was about time I got into computing— as friends and relatives were involved in computers, I thought that I might be able to get some help from them too."

>"What do you do with QL at present?"

"I am still wading through the manual (which I find very good!) so all I am doing at present is a some wordprocessing, and learning about the QL generally. I also have some games."

>"How easy to understand did you find the manual, and how easy to use is the software that you have at present?"

"The manual is very good in the parts that I have read. It is so large though that I tend to get discouraged and do something else. The program seem ok, but finding what to do was rather confusing— they seem to have features that I don't need."

>"What do you anticipate doing when you have more time to devote to it?"

"I would like to learn more, and maybe get my household accounts and my the contents of various files sorted out rather than being on paper."

>"Would you use Archive for that?"

"I haven't got to grips with that yet— I want something simple, but I will probably try it, but it looks complicated so it may not be worth the time sorting everything out for it."

>"If there was one thing, (regardless of cost!) that you could do with or buy for your QL what would it be?"

"What a question! I don't know... A better understanding of what I have already would help, and then I would like to be able to do the simple things that I mentioned without the hassle. Doing most things involves reading a manual, then guessing at the meaning."

>"What do you find most difficult to do with your QL system at present?"

"I would have been baffled by the printer if you hadn't set it up, but now the main thing is new programs. They all use different systems for making back-ups, and I have one that I cannot back-up at all. It is silly."

>"Have you been to a ZX Microfair?"

"Yes, I went to the last one. It was very interesting, and I thought it was particularly interesting to see how many of the big adverts are run by small family firms. I was also able to look at some things that I had thought about buying before doing so. Useful."

>"Would you want to go again?"

"Yes, if I can spare the time."

>"What made you subscribe to the mag?"

"It was the idea of being able to phone somebody up when I got stuck— so much of QL World is too technical, and many QL products seem specialised."

>"How easy was the intro copy?"

"It was generally quite easy, but I got lost on the programming sections and in the sections on jargon."

>"Oh, sorry about that! Thank you for talking to us about your experiences."

>"Is there anything that I haven't asked about that is important to you?"

"Mmm. Well I think that if you could run some tutorials on the basic operations of the QL, and how to get over some of the pitfalls it would be a help to people like me."

>"We are thinking about doing that."

Now comes the other point about this interview. We hoped is that it would be a source of debate. We already know from conversations with a number of you that a page for beginners would be useful to you. Please let us know what you want to see— we may even allocate a page each month for articles and comment from beginners to beginners. (Extra to letters/help and backspace.)

A number of people have criticised for not representing member's views, and compared us to QUANTA. If you have any problems or criticisms of service, then please tell us, not just others. We can then take steps to rectify the problem— unless we know, we cannot do anything to sort things out for you.

Backspace

Hype is something that seems to plague the computing industry. One is always reading adverts in the computing press about the astonishing advances of the latest programs, the latest hardware, and the latest systems. It seems that the companies are constantly creating new terms just to describe their new products, or give the press buzzwords.

Computers are getting faster and more powerful all the time—technology has increased so fast since the advent of the microcomputer, that it seems that it is never possible to keep up with the latest developments. Perhaps that is partly why the IBM PC compatible standard has been adopted so widely. People dislike change, yet it seems that despite that standard, those same people have a constant desire for improved power and speed. People no longer know what they need or want.

The other feature of computing at present is astonishing cost cutting. Looking through the magazines, you will find that there are numerous companies who claim "the lowest ever prices" or "guaranteed best price". This is often hype too, but constant price decreases look never ending.

There are small dealers who appear, and offer staggering prices which undercut the prices of the largest distributors. It is not just that dealers who quote the RRP or near the RRP on printers, the toughest market at present, are selling the same products with huge margins, but rather that they are having to pay far more for them than the former. It is common to be able to buy a printer from one of the cut price dealers, at a price including VAT and delivery, for less than it would cost to buy at trade price from one of the distributors, even before adding VAT and delivery.

Is it really good for the market to have such a situation? How can a market where stock bought today is worth less than the purchase price tomorrow, and may well be out of date, possibly survive? Dealers will stop stocking anything, and everything will depend on word of mouth, and reviews.

Obviously, in the short term, it is very good for the customer, as he or she can buy computer equipment that would have cost maybe two or three times the amount sometimes less than a year previously. It means that the market can grow, and the sales figures for computers can soar. It means an increase in the number of individuals and small businesses making use of computers, at least in the short term. To carry the constant hype over power

and prestige, and the constant price cutting to the logical conclusion, a number of very unfortunate situations could, in theory, arise to change computing as we know it at present.

One view is that eventually, everyone will at some time be able to buy an enormously powerful personal computer so cheaply that when their present computer breaks down, it will seem more sensible to buy a new one, with all the new features that have been added in the months since the purchase of the broken down one, than having the original one fixed or maintained.

We may eventually find that the world faces a huge ecological problem, from the large quantities of computers etc. piling up in tips. (You have seen the Amstrad advert for PCW v typewriters, haven't you?) There will not only be portables, but disposables, available from vending machines like chocolate.

Another possibility is that it will become pointless to buy any equipment, as it will be out of date so quickly. Leasing machines will seem like the only logical method of getting hold of the latest technology, and eventually, even the companies leasing the equipment will have to charge so much to cover the costs of constant updating of systems, that users will start to buy computer time only. The costs will make personal computing impractical, and only large companies will be able to buy their own computer systems.

The last suggestion that I have to depress the market is equally sad. The constant price cutting, combined with the rapid increase in the rate at which new products are developed will mean that the smaller companies cannot afford to develop products due to the vast competition, small profit margins and speed at which ideas are copied and produced at lower cost. The small companies will become weak and as they start to go to the wall, a few very large companies will buy them all up, to secure their standards. Competition against such companies will be almost impossible, and with such power, they will enforce new legislation to ban clone manufacturers, or cheap imports. They will be "forced" to raise their prices due to economic pressures.

The world of computing will have done a complete cycle, from the high cost computing, restricted to the largest companies, and the hiring of computer time, to low cost personal computing for all, with a wide range of uses, and then back to the first system.

Probably all my suggestions about the future of the computing industry are wrong. I hope they are! The market will stabilise at some point, and we will see the way clear for the future—a confident future, where companies work together to develop the future.::

STOP PRESS!

INFORMATION ABOUT THE LATEST DEVELOPMENTS OF S.U.B.

SUB *Soft*

A new software label is set to plunge into the QL market. (That is meant to be a pun, because the market is quash with new products.) The final details are not finalised yet, but it will be called "SUB Soft!" It will offer a new range of unique games, utilities, and home & business programs for the QL, Thor, and all compatibles, at budget prices from £7.50, to £15 for the bigger packages which need printed manuals. They will all be supplied on disc or microdrive without protection.

The "management" are now looking out for programmers with ideas or programs that they would like to market, but who lack the resources necessary to do their work justice. All interested programmers should contact "SUB Soft" c/o Super User Bureau at our usual address, or phone me, Richard, now.

Opportunity knocks

On the subject of writing new software Datonet Systems whose ProCAD 3 program has been extremely successful, have sent us a fax asking us to include a message asking for new programmers, and new ideas. They are expanding, and are looking for new and "established" programmers to work on existing, and new ideas for the QL. They also claim that they can offer the support of an established company to programmers who have a good product but cannot market it professionally. For further details contact "Datonet Systems, PO Box 121, Luton, Bedfordshire, LU1 5SY" now.

REMEMBER, WE ARE EASY TO CALL!

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TELEX: 934999, TXLINK G, QUOTING REFERENCE NO: 219998590.

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